Google

This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at http://books.google.com/

LANE MEDICAL LIBRARY STANFORD
9029 4174 6204

PSYCHO-THERAPEUTICS

TUCKEY

41 a

LANE

MEDICAL LIBRARY

LEVI COOPER LANE FUND

LANE MEDICAL LIBRARY OF
STANFORD UNIVERSITY
300 PASTEUR ROAD
PALO ALTO, CALIFORNIA

LANE

MEDICAL LIBRARY

LEVI COOPER LANE FUND

LANE MEDICAL LIBRARY OF
STANFORD UNIVERSITY
300 PASTEUR ROAD
PALO ALTO, CALIFORNIA

LANE

MEDICAL LIBRARY

LEVI COOPER LANE FUND

LANE MEDICAL LIBRARY OF
STANFORD UNIVERSITY
300 PASTEUR ROAD
PALO ALTO, CALIFORNIA

PSYCHO-THERAPEUTICS.

PSYCHO-THERAPEUTICS;

OR,

TREATMENT BY HYPNOTISM AND SUGGESTION.

BY

C. LLOYD TUCKEY, M.D.,

MEMBER OF THE MEDICO-PSYCHOLOGICAL ASSOCIATION; MEMBRE FONDATEUR DE LA SOCIÉTÉ D'HYPNOLOGIE, LATE VISITING PHYSICIAN TO MARGARET STREET INFIRMARY.

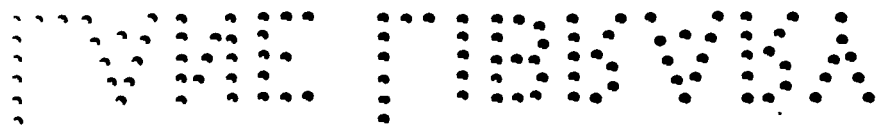
Third Edition, Revised and Enlarged.

LANE MEDICAL LIBRARY
17156
SAN FRANCISCO

THE PROPERTY OF THE
APR
30
1892
NEW YORK HOSPITAL.

LONDON:
BAILLIÈRE, TINDALL AND COX,
20 & 21, KING WILLIAM STREET, STRAND.
[PARIS AND MADRID.]
1891.

All rights reserved]



T89
1891

TO

DR. LIÉBEAULT,

OF NANCY,

IN ADMIRATION OF HIS GENIUS,

THIS BOOK,

THE OUTCOME OF HIS TEACHING,

IS

Gratefully Dedicated.

PREFACE TO THE THIRD EDITION.

THE fact that the second edition of 'Psycho-therapeutics' was exhausted within two years of the first appearance of the book affords at once an indication of the interest with which hypnotism is regarded, and a justification for the issue of a new and larger edition.

The increased size of the present volume is due to the wish many persons have expressed for a book dealing more fully with the theory of Psycho-therapeutics, and it is hoped that the additional matter will be found to throw some light on the subject.

I have endeavoured to treat the question with fairness and frankness, and I shall consider myself well rewarded if I have succeeded in putting it before my medical readers in such a shape as to induce them to make trial of hypnotic suggestion.

I have again to thank Dr. Habgood for his kind assistance in preparing this edition.

C. L. T.

LONDON, *October*, 1891.

PREFACE TO THE SECOND EDITION.

In bringing before the profession a second edition of 'Psycho-Therapeutics,' I must thank my critics for the kindly manner in which they received the book a few months ago. It professed merely to be an introduction to the subject, and it seems to have fairly well fulfilled its purpose.

The present edition, while claiming only the modest position of its predecessor, is considerably enlarged, and contains additional chapters on the physiology and psychology of hypnotism, on simulation, and on my personal experience, which will, I hope, render it a useful handbook for practitioners who have not the time to devote to more elaborate and systematic works.

Dr. William Habgood has kindly assisted me by revising the proofs.

C. L. T.

January, 1890.

PREFACE.

In bringing forward this little book on Treatment by Suggestion, I feel that, though I must crave indulgence for the shortcomings of the writer, no apology is necessary for introducing so important a subject.

The Nancy treatment has during the last few years attracted so much interest among men of science and members of the medical profession on the Continent, that it seems strange the knowledge of it in this country is almost entirely theoretical. The system of psycho-therapeutics has so far attained its fullest development in Holland, where in every large town it is followed by at least one well-qualified practitioner; while in Germany, Russia, Sweden, and indeed every European country, its position is secured by the support of leading physicians, and by the success attending their practice. In every country, I believe, the introduction of the system was at first opposed by persons who feared the popularization of so potent an agent; but as the beneficial results of the treatment became manifest opposition decreased, and has now almost died out. This is doubtless due chiefly to the fact that the treatment has not been allowed to fall into the hands of ignorant and unqualified practitioners, but has been accepted by men of high character and professional repute. The dangers of hypnotism have been proved chimerical: in proper hands no undesirable medical results can occur through its practice, and there is, I believe, hardly one authenticated case of its being used for a criminal purpose in the countries where it is

most frequently employed by medical men. More than this can hardly be said for any system of medical treatment.

But while maintaining that hypnotism has been very little used for criminal purposes, we should be foolish to blink the fact that it *might* conceivably, under certain circumstances, be a dangerous weapon in unprincipled hands, and that its injudicious use *might* lead to physical and mental ills; but such evil results are in a very great measure preventible. Wherever hypnotism has been largely adopted as a valuable aid in the treatment of disease, its importance has been formally recognised, and its employment by charlatans, either as a toy at public exhibitions, or in unauthorized medical practice, has been prohibited by law.

Medical electricity is only now emerging from the limbo of quackery, because for years the medical profession allowed it to be exploited by 'professors,' who used it as a universal remedy in all cases, suitable and unsuitable. The Nancy system has been successful on the Continent because it is practised there by qualified physicians and surgeons, whose knowledge and experience has taught them where the treatment would be likely to succeed, and where it would prove ineffectual. I here advocate its use not as a universal remedy or as a supplanter of ordinary medical treatment, but as a powerful auxiliary in combating many forms of disease not readily reached by other means.

C. L. T.

GREEN STREET,
GROSVENOR SQUARE,
Jan. 1*st*, 1889.

CONTENTS.

CHAPTER I.

PAGE

Introduction - - - - - - - I

ERRATA.

Page 78, line 24, *instead of* 'man' *read* 'than.'
,, 149, ,, 29, *instead of* 'thirty-four' *read* 'thirty.'
,, 164, ,, 35, *instead of* 'was' *read* 'were.'
,, 185, ,, 41, *instead of* 'exist' *read* 'exists.'

the King's Evil.—Modern Instances of Efficacy of Royal Touch - - - - - - - - 8

CHAPTER III.

Power of Mind and Body increased by Concentration of Attention and Energy.—Suppression of one Faculty tends to Increase the Development of others.—Concentration of Mind on one Idea in Somnambulism, and Performance of Tasks impossible when Awake.—Some Tragical Results of Natural Somnambulism.—Artificial or Hypnotic Somnambulism may be turned to Therapeutic Purposes.—Natural Sleep may pass into Hypnotic Sleep, and *vice versâ*.—The Faculties may be aroused and intensified in Hypnotic Somnambulism - - - - - - - 30

CHAPTER IV.

PAGE

Dr. Liébeault of Nancy.—Description of his Treatment.—System free from Mysticism. Curative Suggestions.—Explanation of the Phenomena. Definition of Hypnotism.—Absolute Sleep or Unconsciousness unnecessary for Curative Treatment. Theory of Professor Charcot not accepted by the School of Nancy.—Proportion of Persons Hypnotizable and Degrees of Hypnotic Influence.—Phenomena of Somnambulism outside the Sphere of Psycho-Therapeutics - 42

CHAPTER V.

Psycho Therapeutics not an exclusive System of Treatment.—Some Diseases found to benefit from it. Organic Processes affected by Hypnotic Suggestion.—Blisters and *stigmata* so caused.—Treatment especially useful in Neurotic Diseases. Hysteria, Hypochondriasis, Dipsomania, and the Opium Habit. Moral Depravity. -Double Consciousness. Permanence of Cures. Hypnotism distinct from Magnetism. Possible Abuse of Hypnotism not a Bar to its Use in Medical Treatment.—Restrictions and Precautions necessary - - - - - - - 57

CHAPTER VI.

Some Points in the Physiology and Psychology of Hypnotism.—Authorities and their Theories.—Expectant Attention, Suggestion, and Inhibition.—Induction of Functional Aphasia, and what it teaches.—Exaggeration or Suppression of certain Senses and Functions in the Hypnotic State.—Automatism in Hypnotism and in the Pathological State.—Amnesia.—Hypnotism compared with the Action of Poisons.—The Double Brain, its Single Action in Health and possible Dual Action in Disease and in the Hypnotic State. Cases illustrating this.—The Induction of Automatism without Hypnotism - - - - - 107

CHAPTER VII

PAGE

Reality of Hypnotic Phenomena.—Simulation Tests. Practical Directions for Medical Hypnotism.—Absence of Personal Element in the Nancy Treatment - Method of Fascination. Voisin's success in Lunacy.—Forel's Opinion of the Treatment. Hypnotism best applied by the Family Physician.—Some diseased Conditions benefited by Hypnotism. —Medical Education essential for its successful Practice. - Aids to Hypnotism - - - - - 127

CHAPTER VIII.

Inhibition.—Definition.—Dynamogenesis.—Theories of Brown-Séquard.—Lauder Brunton.—Interference.—Experiments - 179

CHAPTER IX.

Natural Analogies of Hypnosis —Relation of Hypnosis to Sleep and other Conditions. — Theory of Hypnosis. — Leucomaines and Animal Alkaloids. Conditions of Consciousness. — Hypnotism and Hysteria.—Nutrition during Hypnosis.—Italian Researches - - - - - 193

CHAPTER X.

Part I. -Some cases successfully treated by Hypnotism and Suggestion by other Authors: 1. Aggravated Hysteria; 2. Hysterical Contracture; 3. Hysterical Aphonia; 4. Chorea; 5. Hysteria, 6. Pseudo-paralysis; 7. Writer's Cramp; 8. Rheumatism; 9. Articular Rheumatism; 10. Neuralgia of Fifth Nerve; 11. Sciatica; 12. Nocturnal Enuresis; 13. Amenorrhœa; 14. Menorrhagia; 15. Partial Hemiplegia; 16. Hypochondriasis; 17. Puerperal Mania; 18. Hysteria and the Chloral Habit; 19. Moral Depravity; 20. Neuralgia and Hemiplegia; 21. Headache and Dyspepsia; 22. Chronic Alcoholism; 23. Neurasthenia and Deficiency of Saliva; 24. Confinement under Hypnotism; 25 Loss of Speech for Eight Years; 26. Functional Paraplegia; 27 to 30. Epilepsy; 31. Intermittent Fever; 32. Syphilitic Retinitis and Optic Neuritis; 33 Epilepsy - 222

PAGE

Part II.—Some cases treated by the Author: 1. Insomnia; 2. Neurasthenia; 3. Writer's Cramp; 4. Tabes Dorsalis; 5. Torticollis; 6. Traumatic Headache; 7. Chronic Diarrhœa; 8. Paroxysmal Sneezing; 9. Chronic Constipation; 10. Supra-orbital Neuralgia; 11. Spinal Irritation; 12. Functional Heart-trouble; 13. Symptoms dependent on Organic Heart Disease; 14. Enuresis Nocturna; 15. Gouty Sciatica; 16. Chronic Rheumatism; 17. Nervous Dyspepsia; 18. Amenorrhœa; 19. Functional Dysmenorrhœa; 20. Post-Parturition Troubles; 21. Dipsomania; 22. Moral Case; 23. Incipient Melancholia; 24. Tobacco Habit; 25. Neurasthenia; 26. Chronic Alcoholism; 27. Nervous Prostration; 28. Extreme Anæmia.—Some Failures.—Cases from General Practice - - - - - - - - 252

APPENDIX.

Dr. Yung's Experiment with 'Magnetized Cards.'—James Braid of Manchester.—Duration of Hypnotic Sleep.—Dr. Luys' Rotating Mirror and Dr. Ochorowicz's Hypnoscope.—Theory of Professor Delbœuf.—Some Phenomena of Hypnotic Somnambulism.—Dr. Liébeault's Classification of Hypnotic Sleep. — Method of Public Performers. — Resolutions adopted at the Paris Congress. — International Statistics of Hypnotism.—Experiments in Auto-Suggestion.—Hypnotization of Animals.—Treatment by Transfer.—Christian Science Healing.— Hypnotism and Crime - 282

TREATMENT BY SUGGESTION.

CHAPTER I.

INTRODUCTION.

It is desirable to clearly set forth the genesis of the present revival of *psychotherapeutics*, lest, as sometimes happens, unassuming merit be deprived of the honour due to it, and other claims arise to obscure those of the real founders of the system.

Perhaps the most unfounded claim is that of the magnetizers, who assert that they have kept the subject before the public by their experiments and entertainments. This contention is easily answered, for, in the first place, the method practised by Dr. Liébeault, and described in these pages, differs in nearly every respect from that employed by such persons; and secondly, their performances have never done anything else but degrade this branch of medical science, and turn the medical profession against it. Their method is unchanged since the beginning of the century, and they have hardly even added a new trick to their stock-in-trade.

So low had the estimate of the scientific value of induced-sleep fallen, that in 1874 the French medical dictionaries threw doubts on its existence, except as a pathological curiosity, and the English encyclopædists followed much the same course.

Since the year 1875—when Dr. Charles Richet began

to write on the subject of hypnotism—there has been no lack of scientific investigators on the Continent. Among the most distinguished of these are Charcot in Paris, and Heidenhain* at Breslau, and they have demonstrated beyond the possibility of doubt the genuineness of the phenomena of induced somnambulism. But long ere this—in 1860—Dr. Liébeault had opened his public dispensary at Nancy, and had elaborated his system, which he caused to be known as *Treatment by Suggestion*.

In 1866 he published a book on the subject, in which he gave to the world a full description of the means used by him, and an account of cases successfully treated.† But little notice was taken of it at the time, and even in Nancy, where Dr. Liébeault lived a retired life, devoted to the poor among whom he practised, he was regarded as, at the best, an amiable but mistaken enthusiast. In 1882, Professor Bernheim, of the Faculty of Medicine at Nancy, began to investigate the system, quite as a sceptic, so he tells us, and, being soon convinced of its value, introduced it into his hospital *clinique*. In 1884 he brought out his classical work on suggestion.‡

Dr. Bernheim was well known in the medical world, and his book attracted general attention on the Continent Physicians began to practise hypnotism in many of the larger cities, and flourishing *cliniques* sprang up in all directions. Among the first and most notable of these are those of Drs. Van Renterghem and Van Eeden, of Amsterdam; Wetterstrand, of Stockholm; Von Schrenk-Notzing, of Munich; Moll, of Berlin; Berillon, of Paris, and Milne Bramwell, of Goole

This book does not profess to give a literary history of the movement, and a glance at the catalogue§ given by

* 'Hypnotism; or, Animal Magnetism,' 2nd edition, London, 1888.

† 'Du Sommeil et des Etats Analogues, considérés surtout au point de vue de l'action du Morale sur le Physique,' Paris, 1866; 2nd edition, 1889.

‡ 'De la Suggestion, et de ses Applications à la Thérapeutique,' Paris (second edition), 1887.

§ 'Erster Nachtrag zur Bibliographie des Modernen Hypnotismus,' Berlin, 1890.

Dr. Max Dessoir of recent publications on hypnotism is enough to deter any but the most determined student from approaching the subject. During the two years 1888, 1889, there appeared nearly 400 books, pamphlets, and articles on hypnotism. A large proportion of these are by medical men, and are written in the French language. But among the pioneer writers on hypnotism must be named Professors Beaunis* and Liegeois† of Nancy, who have treated the matter from the standpoint of their special departments, physiology and jurisprudence. Professors Delbœuf, of Liège; Fontan and Ségard, of Toulon; Preyer and Max Dessoir, of Berlin; Krafft-Ebing, of Vienna; Forel, of Zurich; Wetterstrand, of Stockholm; Van Renterghem and Van Eeden, have given us thoroughly practical books describing their practice, and Dr. Albert Moll's book is as well known in England as in Germany. On the eve of his retirement from practice, Dr. Liébeault has issued a new volume containing the results of his thirty years' experience, and this book will be in the hands of every student of the Nancy treatment.

In 1889, I wrote that, as far as I knew, there was no literature in English on the subject, and Dr. A. T. Myers, commenting in the *Practitioner* on the backwardness shown by the profession in this country in investigating hypnotism, cited the references to the treatment in the medical journals of the world during the year 1888. He found only seven notices in English journals, against sixty-one in those of France, thirty-five in Germany, twenty-two in Italy, and sixteen in those of the United States.

But during the last two years a great change has come over the scene, and there are allusions to hypnotism in almost every issue of our medical journals. Drs. Kingsbury, Arthur, and others, have published cases, and

* 'Du Somnambulisme Provoqué,' Paris, 1886.

† 'De la Suggestion et du Somnambulisme dans leur Rapports avec la Jurisprudence et la Médecine Légale,' Paris, 1888.

‡ Vol i., 1890, p. 201.

the question is now well before the profession. Dr. Felkin, of Edinburgh, has written a masterly exposition of hypnotism in the *Edinburgh Medical Journal* (vol. xxxv.), which is republished in book form ('Hypnotism and Psycho-Therapeutics,' Edinburgh, 1890); and Dr. Hamilton Osgood, of Boston, has contributed to the *Boston Medical and Surgical Journal* (1890) an extremely interesting article illustrated by cases. Dr. Kingsbury has just published a valuable practical handbook, and the English translations of the works of Bernheim and Moll have had a very large circulation. There is therefore no longer any need to lament the want of literature on hypnotism in the English tongue.

The following list gives a few of the more important books and papers recently published on hypnotic suggestion:

Liébeault: 'Thérapeutique Suggestive, son Méchanisme,' etc., Paris, 1891.
Bernheim: 'Hypnotisme, Suggestion, Psycho-therapie,' Paris, 1891.
Fontan et Ségard: 'Eléments de Médecine Suggestive,' Paris, 1887.
Delbœuf: 'De l'Origine des Effets Curatifs de l'Hypnotisme,' Paris, 1887.
A Pitres: 'Leçons Cliniques sur l'Hystérie et l'Hypnotisme,' Paris, 1891.
Bonjean: 'L'Hypnotisme, ses Rapports avec le Droit et la Thérapeutique.'
Van Renterghem et Van Eeden: 'Clinique de Psycho thérapie Suggestive,' Brussels, 1889.
Von Krafft-Ebing: 'Eine experimentelle Studie auf dem Gebiet des Hypnotismus,' Stuttgart, 1889.
Von Schrenk-Notzing: 'Ein Beitrag zur therapeutischen Verwertung des Hypnotismus,' Leipsic, 1888.
Forel: 'Der Hypnotismus, seine Bedeutung und seine Handhabung,' Stuttgart, 1889.
Forel. 'Der Hypnotismus, seine psychophysiologische medicinische,' etc., Stuttgart, 1891.
Preyer: 'Der Hypnotismus,' Vienna and Leipsic, 1890.
Moll. 'Der Hypnotismus,' Berlin, 1890 (2nd edition).
Wetterstrand. 'Der Hypnotismus und seine Anwendung in der Practischen Medicin,' Vienna and Leipsic, 1891 (German edition)
Lehmann (of Copenhagen): 'Die Hypnose,' Leipsic, 1891 (German edition), 'und die damit vorwandten normalen Zustandten.'
Morselli: 'Il Magnetismo Animale, La Fascinazione, e gli Stati Hypnotici.' Turin, 1886 (2nd edition).
Tanzi: 'Sulla cura suggestiva del morfinismo,' Naples, 1889.
Herrero: 'El Hypnotismo y la Sugestion. Estudios de Fisiopsicologia y de Psico-terapia,' Valladolid, 1889.
Hamilton Osgood: 'Hypnotic Suggestion,' with notes of 34 cases, Boston, 1890.
Kingsbury: 'The Practice of Hypnotic Suggestion,' Bristol, 1891.

Nicoll : 'Hypnotic Suggestion,' London, 1891.
Felkin : 'Hypnotism or Psycho-therapeutics.'
Hack-Tuke : 'Sleep Walking and Hypnotism,' London, 1884.
Hy. Barwise : 'Hypnotism : Its Possibilities, its Uses and Abuses,' Birmingham, 1888.
Gerald Yeo : 'The Nervous Mechanism of Hypnotism,' London, 1884.

Students of contemporary hypnotism will find the subject exhaustively dealt with in the *Revue de l'Hypnotisme*, a medical journal devoted to this branch of therapeutics, published monthly in Paris, under the able editorship of Dr. Edgar Berillon.

The Society for Psychical Research has done, and is doing, much good work in the scientific investigation of hypnotism, and its members were among the first persons in this country to recognise its importance as an aid to experimental psychology. The clear and able papers contributed by Mr. F. W. H. Myers, the late Edmund Gurney, and other writers, in the Proceedings of the Society, are among the best things which have been written on the subject.

To James Braid, the Manchester surgeon, is due the credit of having seen the germs of truth which lay hidden and obscured in the writings of Mesmer and the animal magnetizers. He attempted to explain by physical laws the effects produced by mesmerizers,* and he ridiculed the notion of there being any such thing as a magnetic fluid or current. His disgust for the mysticism of mesmerism drove him, perhaps, too far towards the other extreme, and made him more rationalistic than the facts warranted him in being. Although he publicly demonstrated his system of healing -which he practised with much success—and wrote several works upon the subject, it appears to have died with him, and it remained for Dr. Liébeault to arrive at the truth of psycho-therapeutics.

The most important recent event connected with the progress of hypnotism in this country is the appointment of a commission by the British Medical Association as

* 'Neurypnology,' London, 1843; 'The Power of the Mind over the Body,' London, 1846.

a result of the important discussion at the annual meeting held at Birmingham in 1890. The objects of this committee are fully detailed by Dr. Kingsbury—himself a member of it—in his recently published work. And it is hoped that the result of the inquiry will be the establishment of hypnotic practice on a sound professional basis, and the prohibition of its use by showmen and idlers. No one wishes to restrict the use of hypnotism in the researches of men of science, for this most interesting study affords a key, as Professor Preyer says, to many psychical and physical processes connected with the nervous system; but we feel convinced that in the interest of the public, and for the dignity of the subject, it will be necessary to surround its employment with precautions against abuse.

One looks forward to a time, in a not very remote future, when Englishmen will take that leading position in the investigation and practice of hypnotism which one would expect from the compatriots of James Braid.

The present movement is practically the third revival of psycho-therapeutics in modern times. That inaugurated by Mesmer in 1776 came to nothing on account of the fraud, ignorance, and exaggeration with which it was surrounded, and the second under Braid found even less acceptance from contemporary men of science; but the revival we now see is probably destined to make a deep and permanent impression on the history of medicine. It is the outcome of evolution and scientific progress in all departments of medical knowledge, and the time is ripe for its recognition and reception.

I believe that all great discoveries are led up to by previous half-discoveries; and it does not detract from Dr. Liébeault's credit that he started with a large amount of evidence on the subject collected by earlier observers, any more than Darwin's claim to be the first evolutionist is weakened by his having drawn on the material supplied by Lyell, Hooker, and a multitude of others. Liébeault's genius taught him to arrange and systematize the facts

collected by his predecessors, and to find the true explanation of phenomena which they had misunderstood. And his patience and steadfast courage led him to persevere in his work, undeterred by opposition or neglect, until now we find him the founder of a school which, as I have said, has its representatives all over the Continent —acute and clear-sighted men of science, of a class quite unlikely to entertain the fanciful theories of mesmerism, on the one hand, or those of 'faith healing' on the other.*

I need hardly say that medical hypnotism has nothing in common with spiritualism, and it is a curious thing that in this country some persons seem to think them associated.

* The truth of this assertion has been agreeably verified by events. Dr. Liebeault has recently retired, and visitors to Nancy will no longer have the pleasure of seeing his practice and listening to his kindly talk He has worked all these years from love of his profession, and not from desire for gain, and he has retired on a modest competence not acquired from his practice, which was wholly unremunerative. To celebrate the occasion, many of those who had enjoyed his friendship and derived profit from his instruction decided to present him with a testimonial. The movement was joined in by medical men from all parts of the world, and the presentation was made in May, 1891. There were over sixty subscribers to this testimonial, and among the contributors one finds many names of eminence in the profession, as Dumontpallier, of Paris; Preyer, of Berlin; Krafft-Ebing, of Vienna; Morselli, of Genoa; Cruise, of Dublin.—Vide *Lancet*, June 27, 1891, and *Revue de l'Hypnotisme*, June, 1891.

CHAPTER II.

Examples showing the Power of the Mind over the Body.—Anæsthesia produced by the Imagination without Chloroform.—Cures effected by the Imagination and by Mental Emotions.—Illness and Functional Disorders induced by Morbid Direction of Thought.—Organic Changes possible from the same Cause.—Illness, and perhaps Death, caused by Suggestion of Symptoms.—Auto-Suggestion.—Simulated Death.—Cures at Shrines and Holy Places.—Touching for the King's Evil.—Modern Instances of Efficacy of Royal Touch.

ALL who have given any attention to the subject acknowledge what immense power the mind—acting in conjunction with or apart from the will—has over the body, forcing it at times to unusual or even extraordinary effort. This power is exercised both in health and disease, but is peculiarly evident—perhaps because it is more closely observed—in the latter condition. Everyone, the physician and psychologist especially, knows some curious instances illustrative of its effects: such as the story of the hospital patient to whom the consulting physician gave a prescription, with the remark, 'Take this, it will do you good.' At the man's next visit, he, being asked for the prescription, replied that he had swallowed it as directed, and it had, according to promise, done him 'a power of good.' Dr. Hack Tuke* gives a number of cases in which drugs have acted not according to their proved properties, but according to the expectation of the patient. For instance, a student having asked for an aperient pill, the dispenser by mistake gave him one composed of opium and antimony, which, instead of producing the usual effect of inducing perspiration and drowsiness, acted in the way the student expected. Every medical man can

* 'The Influence of the Mind upon the Body,' London, 1884.

quote examples of this sort from his own practice, and if sometimes he is wrongfully accused of having produced baneful effects, he is indemnified at others by having marvellously good results ascribed to very simple measures.

There are few cases of this kind more remarkable than one related by Mr. Woodhouse Braine, the well-known chloroformist. Having to administer ether to an hysterical girl who was about to be operated on for the removal of two sebaceous tumours from the scalp, he found that the ether bottle was empty, and that the inhaling-bag was free from even the odour of any anæsthetic. While a fresh supply was being obtained, he thought to familiarize the patient with the process by putting the inhaling-bag over her mouth and nose, and telling her to breathe quietly and deeply. After a few inspirations she cried, 'Oh, I feel it; I am going off!' and a moment after her eyes turned up, and she became unconscious. As she was found to be perfectly insensible, and the ether had not yet come, Mr. Braine proposed that the surgeon should proceed with the operation. One tumour was removed without in the least disturbing her, and then, in order to test her condition, a bystander said that she was coming to. Upon this she began to show signs of waking, so the bag was once more applied, with the remark, 'She'll soon be off again,' when she immediately lost sensation, and the operation was successfully and painlessly completed. This girl had taken ether three years before, so that expectation and the use of the apparatus were sufficient to excite her recollection, and call back the effects of the drug as then experienced.

It is told that when Sir Humphry Davy was investigating the properties of laughing-gas—as nitrous oxide was then called—he proposed to administer it to a man who was suffering from tic-douloureux, but before doing so he tried his temperature by putting a thermometer into his mouth. The man took this instrument for some new and subtle remedy, and in a few minutes exclaimed that the pain was cured. The same belief in the efficacy of

the thermometer remains to this day among the uneducated, as a friend of mine found to his cost when he was hospital-clerk to a well-known physician. It was his duty to take each morning the temperature of every patient, but on one occasion, being pressed for time, and knowing by experience that a certain patient's temperature was always normal, he saved a few minutes by leaving it untried. Later in the day, when the physician asked this man how he felt, he replied that he was much worse, as might be expected considering the way in which he was neglected. On inquiry it came out that the potent charm of having the glass tube in his mouth for three minutes had been omitted, and my friend got a reprimand

While in Jamaica, I knew a young lady who had for months been confined to her bed or couch, unable to walk a step, from apparent paralysis of the lower extremities, which entirely defied the treatment used. One morning news was brought to her that her brother, to whom she was devotedly attached, had fallen from his horse, and was lying in a critical condition some miles away in the mountains. She immediately got up, herself helped to saddle a horse, rode to the scene of the accident, and nursed her brother night and day for a week. She was completely and permanently cured of the paralysis, which of course was merely functional and hysterical, by the nervous shock which had brought her will into operation.

A somewhat similar case came under my observation some years ago. A clergyman in whose house I was staying had long been a sufferer from chronic rheumatism, through which he was so disabled that he could only walk very slowly and with great inconvenience. On this occasion he was lying on a sofa, from which he could see through an open door and across a hall into another room, where his wife happened to be. By some careless movement she upset a table there, and, as if by magic, he sprang to his feet and walked rapidly and with a perfectly even step into the opposite room, exclaiming,

'There goes all the ink that was in the house, and I have to write my sermon!' In this instance, however, the cure was as ephemeral as the emotion which had caused it; but it is not improbable that a continued excitement might have prolonged the power of easy motion, and so have broken down and caused absorption of the adhesions and exudations which produce the pain.

At a water-picnic some months ago, a young lady complained of terrible neuralgia. From some cause the boat began to rock violently, and she became extremely nervous. Her fear of being upset completely drove away the neuralgia, which did not return, at least on that occasion. It is known that sufferers from sea-sickness almost invariably become quite well in moments of danger; and we can often lose the sense of pain by occupying our mind with some affair of great interest.

Dr. Laycock ('Nervous Diseases of Women,' p. 184) quotes the case of a gentleman suffering from quotidian ague who became so interested in conversation on one occasion, that the hour for his paroxysm passed without his perceiving it, and he escaped the attack. This story gives one ground for believing a statement frequently made, that the time of the recurrence of attacks of intermittent fever may be altered by moving the clock-hands unknown to the patient and thus arousing expectant attention.

My friend, Dr. Arthur, of the East-End Wesleyan Mission, has ingeniously taken advantage of the fact that the force of suggestion is very greatly increased by hypnotism. He has reported in the *British Medical Journal* a series of cases in which he had tried hypnotism with excellent palliative results. But the pains returned from time to time, and it was impossible for the patients always to go to him for relief. He therefore hypnotized them and told them that whenever their symptoms recurred they had only to take a dose of the medicine he would give them and they would experience immediate relief. Among these cases were one of carcinoma uteri, one of scirrhus

of the breast, one of locomotor ataxy, etc., incurable diseases, in which all we can do is to relieve symptoms. The medicine he gave, which hypnotic suggestion caused to act as a panacea, was a mixture of tincture of valerian. He terms this method 'treatment by indirect suggestion.'

The power of religious ecstasy and absorbing religious contemplation, in all creeds and in all climes, to cause disregard of surroundings and contempt for physical suffering need not be insisted upon, for its reality is attested by all history. From the days when Queen Jezebel's priests mutilated themselves on Mount Carmel, to the present time, when we see the dervishes hurl themselves on the bayonets of our soldiers in the Soudan, utterly unmindful of the pains of death, and seeing only the plains of paradise beyond, the story is the same. A condition similar to hypnosis undoubtedly prevails in such cases. It is asserted, and with some reason, that in many cases martyrs at the stake have been mercifully spared much of the suffering which seems inseparable from their cruel death, in consequence of a hypnotic state, with its attendant anæsthesia, being induced in them, partly the result of religious fervour and abstraction, and partly brought about by the glitter of the flames and the clamour of the crowd, over-stimulating certain sensory centres to the consequent inhibition of others. The devotees of certain sects obviously undergo hypnotization before practising their rites, *e.g.* the Aisanouans who recently visited London. These Arabs are hypnotized by their priest or chief, and in the hypnotic state allow themselves to be stung by scorpions and devour venomous snakes. The Indian ghost dance, of which we have recently heard so much, is also a species of hypnotism. The warriors, under pressure of intense excitement, rapidly gyrate round a central point until they fall to the ground, sometimes in a state of lethargy, and sometimes cataleptic.

Dr. Brown Séquard relates a remarkable case of ecstatic catalepsy in a girl whom he was called in to see. She lived in Paris, close to the church of St. Sulpice, and

every Sunday morning at eight o'clock, when the bell began to ring, she used at once to rise from her bed, mount the edge of the bedstead, and stand there on tiptoe until the bell sounded at eight in the evening, when she returned to her bed. The board on which she stood was curved and polished, and it would have been impossible for the most athletic man to have remained on it in such a position for more than a few minutes at a time. While standing there she was utterly unconscious of her surroundings and continued murmuring prayers to the Virgin all the time, her hands clasped, her eyes fixed, and head slightly bent. Some of the bystanders were sceptical, and Dr. Brown Séquard to put her to the test applied a strong interrupted current to her face. She showed no sign of pain, but the muscles reacted energetically and her intonation was therefore slightly affected. The girl was weak and anæmic, and was so thoroughly exhausted by her Sunday exertions, that the remainder of the week she could only lie helpless in her bed. The enormous increase in muscular and nervous force in one direction (dynamogenesis) was accompanied, as is invariably the case, by inhibition of other functions —in this case, those of higher cerebration.*

A rudimentary knowledge of electricity is sufficient to assure us that the vast majority of popular electrical appliances—such as belts and pads—are absolutely inert, and that the good they undoubtedly achieve in some cases is due to their stimulating effect on the imagination.† Cholera-belts, camphor-bags, and such-like 'preventives,' probably act in a similar way. Therefore, though these and kindred contrivances do not operate in the expected manner, I should be sorry to say that they do not serve a useful purpose; by inspiring confidence and keeping alive hope, they often enable their possessor to go unharmed in the midst of contagion, or help him to overcome disease;

* *Revue Hebdominaire*, 1882, p. 36.

† *Vide* letter by Dr. Steavenson in *Lancet* and *British Medical Journal*, October 16, 1889.

for there is no more effectual depressant, no surer harbinger of disease, than fear. Much of the immunity from infection enjoyed by physicians and nurses is due partly to the preoccupation of their minds, which leaves no room for selfish terror, and partly to the confidence begotten by long familiarity with danger.

The plan of substituting a harmless draught for the narcotic mixture without which a nervous patient thinks himself unable to sleep, is, as we all know, continually resorted to, and is an instance of the beneficial employment of the imagination.

On the other hand, it is impossible for an apparently quite healthy person to develop, by pure imagination, the symptoms of serious illness. Laymen who dabble in medical science, and medical students at the beginning of their course, are apt to imagine that they have one or other of the diseases they have been studying—heart-complaint being perhaps the most usual; and of this they do frequently develop some of the subjective symptoms.

A friend of mine tells me that once only in his life has he suffered from laryngitis and loss of voice. This was while attending Dr. Semon's lectures on diseases of the throat. It may have been a mere coincidence, but that hardly explains the frequent instances of medical men who have succumbed to the disease which they have made their special study, *e.g.*, Professor Trousseau from cancer of the stomach. It is possible that the mind being continuously fixed on one special organ predisposes to disease of that organ.

Hypochondriasis is, as we know, a condition in which the patient feels the working of his internal organs, and is morbidly conscious of them. It tends to grow worse, because his attention becomes more and more fixed upon functions which ought to be performed automatically, and unless some powerful mental stimulant is applied, organic disease is sometimes actually set up. Dr. Russell Reynolds* has collected and classified several cases of

* *British Medical Journal*, vol. ii., 483, 1869.

paralysis dependent on functional causes, which were cured by careful treatment directed chiefly to the *morale* of the patients. He points out the difficulties attending the ordinary treatment, and shows how necessary it is to counteract the morbid ideas which are often at the root of the mischief. Most of the cases to which he refers were cured, but some resisted all forms of treatment. Dr. James Reynolds* relates a case of a woman who died in the Birmingham General Hospital from the effects of hysterical paraplegia; the necropsy showed that there was no organic disease. He thus summarizes the dangers of this condition: 'If the nature of the malady be mistaken, and the stimulus of the will be habitually withheld from the inactive muscles, the nutrition of that part of the nerve centre which presides over those muscles becomes impaired, and what was at the beginning a mere perversion of function is finally converted into real organic disease.' Dr. Russell Reynolds thus concludes his paper: 'I believe and know that many cases of apparently grave disorders of the nervous centres may be removed entirely; and that in other instances, when the ideal affection is grafted upon organic lesion, much may be done to remove the former, and afford so much of the stimulus of hope, that the cure of yet graver symptoms is brought within the range, not only of possibility, but of probability and of actual fact.' There are many people of both sexes who never hear of a disease without fancying they have it. The illness of a royal or distinguished sufferer, the progress of which is daily recorded in the newspapers, will sometimes become almost epidemic; thus throat specialists can tell some curious stories of the increase of imaginary and real throat affections during the illness of the late Emperor Frederick. That fear will promote disease has been abundantly proved during outbreaks of cholera, small-pox, the plague, and other epidemics. Pseudo-hydrophobia is a recognised malady, and no doubt many

* 'Paralysis and other Diseases of Motion dependent on Idea,' *ibid.* p. 632.

supposed cures of hydrophobia have in fact been cures of this fear-induced imitation.

Dr. Laycock tells the story of a woman, aged forty-eight, who was in constant attendance on her daughter during her tedious labour. Though she had not menstruated – she had passed the menopause eight years—she experienced uterine pains and had a sanguineous discharge from the parts, and the next day her breasts were swollen, painful, and discharging a serous fluid.* Quoting Sir Benjamin Brodie, he adds that patients have been so acted upon by their fears, and by seeing their friends affected, that they have imagined they have had tumours of the breast, and that it is not improbable that the disease has been so produced.

Nothing can illustrate this truth better than Kinglake's description of the behaviour of the Levantines during an outbreak of the plague at Cairo, showing how these terror-stricken people invited the very danger they feared: 'For awhile it may be that the caution of the poor Levantine may enable him to avoid contact (with the garments of passers by), but sooner or later, perhaps, the dreaded chance arrives. . . . From that dread moment his peace is gone; his mind, forever hanging upon the fatal touch, invites the blow which he fears; he watches for the symptoms of plague so carefully that, sooner or later, they come in truth. The parched mouth is a sign—his mouth *is* parched; the throbbing brain—his brain *does* throb; the rapid pulse—he touches his own wrist (for he dares not ask counsel of any man lest he be deserted), he touches his wrist, and feels how his frighted blood goes galloping out of his heart. There is nothing but the fatal swelling to make his sad conviction complete; immediately he has an odd feel under the arm—no pain, but a little straining of the skin—he would to God that his fancy were strong enough to give him that sensation. This is worst of all. It now seems to him that he could be happy and contented with his parched mouth and his throbbing brain and his rapid pulse, if he only knew that there were no swelling under the left arm; but dares he try? In a moment of calmness and deliberation he dares not; but when for awhile he has writhed under the torture of suspense, a sudden strength of will drives him to seek and know his fate; he touches the gland, and finds the skin sane and sound, but under the cuticle there lies a small lump like a pistol-bullet, that moves as he pushes it. Oh! but is this for all certainty—is this the sentence of death? Feel the gland on the other arm. There is not the same lump exactly, yet something a little like it. Have not some people glands naturally enlarged? Would to heaven he were one! So he does for himself the work of the plague, and when the Angel of Death, thus courted, does in truth and indeed come, he has only to finish that which has been so well begun.'†

Liébeault quotes several authors to prove that many persons seem to have had the power of so dominating their bodies by the force of

* *Op. cit.*, p. 112. † 'Eothen,' p. 257.

will that they succeeded in keeping off illness which threatened them, and in some instances in averting or curing it when it actually had assailed them. Thus, he says, Pascal cured himself of neuralgia by steadfastly fixing his attention on other things, and Goethe relates how he got rid of a troublesome cough in the same way. They induced a condition which was practically identical with slight hypnosis, and suggested to themselves functional changes in the direction of health.

Liébeault tells me he is able to cure himself of slight maladies—such as facial neuralgia—by auto hypnotism and auto-suggestion. He sends himself to sleep by fixing his gaze on some prominent object, such as a door handle, and his mind on the disappearance of the malady, and he drops off into a doze out of which he awakes cured! But I apprehend that such a result can only be achieved by a few, and that, as a rule, both the induction of hypnosis and the suggestions for cure must come from without. In most persons the disease dominates the system, and entirely prevents the presence of that state of mental receptivity and confidence which is an essential preliminary to curative auto-suggestion. *Vide* note, p. 398.

Professor Dubois (quoted by Laycock) divided hypochondriasis into three stages: in the first the mind only is affected: the patient is harassed by imaginary diseases, and concentrates his attention on one or other of the viscera, thereby changing their innervation and bringing about the second stage. In the third stage these nervous changes terminate in organic disease of the affected organ, and the evil ceases to be one of imagination alone.

We sometimes come across people who tell us they 'have no time to be ill;' and certainly reports of longevity show that rust destroys more than use, and that hale old age is more frequently attained by those who have led busy lives than by idlers. Idleness is a well-known factor in producing all kinds of ailments, real and imaginary, of mind and body, perhaps because the idle man, from sheer lack of interest in life, devotes too much attention to his own organism.

Imagination, combined with 'direction of consciousness' (Sir H. Holland) to a part, will produce results which have been noticed by many pathologists. John Hunter said he was confident of producing a sensation in any part of his body simply by concentrating his attention on it. Sir H. Holland observes*: 'In hypochondriasis,

* 'Medical Notes and Reflections,' London, 1839.

the patient, by fixing his attention on internal organs, creates not merely disordered sensations, but disordered action in them.' And again: 'When there is liability to irregular pulsation (of the heart), this is brought on and increased by a simple effort of attention.'

A medical friend of mine, who is affected with insufficiency of the mitral valves, tells me that he is hardly ever inconvenienced by it, except when he has to examine a patient with heart-disease. His attention is then drawn to his own weakened organ, and he suffers from palpitation.

The late Dr. Forbes Winslow, writing on this subject, says*: 'It is a well-established fact that alterations of tissue have been the result of a morbid concentration of the attention to particular organic structures. Certain feelings of uneasiness or even pain originate in the mind a suspicion of disease existing in particular parts of the body, it may be in the lungs, stomach, heart, brain, liver, or kidneys. Some slight irregularities and functional disturbances in the action of these organs being noticed, are at once suggestive (to the hypochondriac) of serious and fatal disease being established in the part to which the attention is directed. This deviation from a normal state of certain functions frequently lapses into actual *structural* disease, as the effect of the faculty of attention being for a lengthened period concentrated on this action. The continuous direction of the mind to vital tissues *imagined* to be in an unhealthy state undoubtedly causes an exaltation of their special functions, and an increase of susceptibility. by (it may be presumed) concentrating to them an abnormal quantity of blood, this being followed successively, by (1) undue vascular action, (2) capillary congestion, (3) an excess in the evolution of nerve force, and (4) appreciable *structural* alterations.† Hysterical contraction of the lower limbs frequently leads to structural changes and disease of the spinal cord (Charcot, Gowers), from impairment of nutri-

* 'Obscure Diseases of the Brain and Mind,' London, 1860.
† *Op. cit.*

tion and trophic changes leading to softening. Dr. Hack Tuke says: 'If twenty persons fix their attention on their little finger for ten minutes, the result will be that most of them will feel decided sensations there, amounting in some to a mere sense of weight or throbbing, and in others to actual pain.' He endeavours to explain this by supposing that the act of attention excites an increased flow of blood to the part, and consequent increased vascularity of the sensory nerve-ganglia, so leading to subjective sensation; or that the sympathetic nerve-centres become excited, and the vaso-motor nerves influenced thereby so as to cause in the finger temporary vascular changes which invoke sensation. He puts forward also a third hypothesis, which is interesting from the relation it bears to that given by Professor Delbœuf, of Liége (see p. 287)—that fixing the attention on a part of the body for some time renders us conscious of the working of functions which are usually performed automatically and unconsciously. Sir James Paget thinks that by nervous excitement the temperature may be roused to at least 101° (from the normal 98·5°); and Professor Wunderlich says on the same subject*: 'In hysterical neurosis elevations of the temperature even to excessive heights may occur without any motive at all.'† Dr. Wilkes relates cases of extreme anæmia caused by depressing emotions; and this agrees with

* 'Medical Thermometry,' New Sydenham Society, 1871.

† I was once called to attend a medical man, whom I found in a state of great alarm on account of the way his temperature was rising. He was an extremely nervous man, suffering from overwork and anxiety, brought to a crisis by a severe attack of bronchial catarrh. He took his own temperature every few minutes, and in less than four hours it mounted from 101°—which represented the amount of fever which one expected to be present to 104°. He became almost delirious, and it took some time to soothe him; but in less than an hour the thermometer only registered 102°, and without any special treatment soon dropped to 100½°. In this case nervous excitement may be credited with having forced a rise of at least 2° F. Krafft Ebing, in the celebrated case of Ilma S., was able by suggestion in the hypnotic state to bring about almost immediate depression of temperature to the extent of two or three degrees (*vide* p. 64), showing the relationship between psychical and somatic processes under certain conditions.

the experience of all medical men, as does also the opposite observation, that pleasant emotions bring about a good state of the blood and secretions, and improve the health. Instances in which the hair has rapidly, even in a few days, suffered atrophic changes, leading to its becoming white and falling out from excessive depressing emotions, are common—and under similar circumstances the teeth will sometimes rapidly decay.

Dr. de Watteville says*: 'One of the most striking properties of the nervous system is that by which the activity of one portion may be arrested or prevented "inhibited"—by the activity of another . . . when we attend closely to a sensory impression or to a train of thought, the excitability of every part of the brain, except that actually engaged in the act is diminished by an inhibitory action of the working portion. Thus, when we say that anger or fear paralyze, we allude in very accurate language to the inhibitory influence which powerful emotion exercises on the cerebral functions.' Dr. Lauder Brunton, speaking of the effect of emotion on the organs, says: 'Whenever emotional excitement is prevented from discharging itself externally by motor channels it is very apt to vent itself upon the internal viscera, and the principal channel through which it does this seems to be the vagus.' He instances the description of emotion without outlet given by Tennyson, in his poem 'Home they brought her Warrior Dead,' and points out how the poet recognised the reciprocity between emotion and motor impulses when he described the relief which followed on the sufferer bursting into tears and embracing her child.† Dr. Laycock and other writers of forty years ago seem to have been well acquainted with the theory of inhibition, though the words of more modern coinage, for he notices how the over-activity of one sense leads to a corresponding suppression of another, and he says: 'When the attention is directed to the perception of

* 'Sleep and its Conditions,' *Journal of Mental Science*, May 1887.
† 'On Inhibition,' *West Riding Reports*, 1874.

changes from without, there is such a change excited in the central terminations of the sensitive nerves, that more vivid perceptions result; and if the attention be concentrated on one set of nerves the others are in a state analogous to paralysis.' He instances the case of Marini, the Italian poet, who allowed his leg to be badly burnt before he was aware of it, so engrossed was he in poetical reverie (*op. cit.*, p. 110). He goes on to say that an act of the will will sometimes excite such changes in the brain as to arrest an incipient paroxysm of angina pectoris or epilepsy.

Dr. Mercier, in his recent work, 'Sanity and Insanity,' refers to an instance of the rapid pigmentary change both as regards the hair and the skin produced by excitement and emotion, and gives as an instance the case of a young Bengalee with perfectly black hair, who was arrested on a grave charge and publicly examined. The danger and horror of the situation so affected him that his hair actually changed colour before the eyes of the spectators, and in the space of half an hour was of a uniform gray tint. That emotion and fancy have power to modify the secretions is shown by the well-known fact that the mouth becomes dry and parched through fear or anger, while on the other hand it 'waters' at the idea of savoury food; the mental impression paralyzing or stimulating the secretory apparatus of the salivary glands. Violent emotion, again, will so modify the secretion of gastric juice as to cause indigestion in subjects at all predisposed to it. An attack of jaundice may be induced by anger—as the popular saying, 'Green with rage,' implies—from an accumulation of bile in the blood through nervous excitement causing 'inhibition' of the healthy function of the liver.

Disease, then, as we have seen, may, in hypochondriasis and kindred states, be induced by *auto suggestion*, and there is no doubt that it may likewise be induced by suggestion from without. Let a man be told repeatedly by his friends that he is looking ill, that he does not seem

fit to go about, that he must take care of himself, or he will have this or that complaint—and unless he has a very cheerful and well-balanced mind, he is pretty sure, for a time at least, to deteriorate in health. There is a story of such suggestions being made, for a practical joke, at the expense of a stalwart farmer, who, having been assured by several persons that he seemed in a bad way, did really take to his bed and go through an unmistakable attack of illness. This, of course, was a cruel and unwarrantable jest; yet a somewhat similar effect is occasionally produced by well-meaning persons, who are in the habit of commiserating their acquaintance for not looking well. Dr. Laycock (*op. cit.*, p. 112) says that the effect of 'fearful attention' has sometimes proved fatal, and instances the case of a man whose death that night was foretold by a ventriloquist at a dinner-party. So great was the effect of the prophecy that it fulfilled itself, and the unfortunate man actually died at about the time indicated. Dr. Gowers, referring to the influence the imagination may have on functions which are ordinarily beyond the control of the will, says that vomiting may be produced by an emotion of disgust, and the needed emotion may be called up without sensorial agency, as is shown by the strange cases in which the husband has retched in sympathy with the vomiting of his wife in pregnancy, and has at last become so sensitive that sickness occurs as soon as he knows his wife is pregnant ('Diseases of the Nervous System,' vol. ii., p. 928).

In subsequent pages I shall detail some experiments to show how greatly the will acting through suggestion is able to modify the action of the heart in hypnosis, but such modifying influence is not necessarily confined to the hypnotic state. As a rule we are unable to exert any decided influence over the vegetative organs by simple ideation, but Professor Tarchanoff has recorded the case of a student who had the power of accelerating his heart's action by no less than 35 beats in a minute. Tarchanoff

has very fully investigated and described the case, and he supposes that the acceleration does not depend upon deficiency in the controlling power of the vagus, but rather on increased control over the accelerators, which the student was able to exercise through the accelerator centres in the cord being connected with a will centre higher up.*

Dr. Hack Tuke gives an instance of death itself being produced by suggestion. A Frenchman of rank was condemned to death for some crime, and his friends, willing to avoid the scandal of a public execution, allowed him to be made the subject of an experiment. He was told that he must be bled to death. His eyes were bandaged, and his arm having been lightly pricked, a stream of warm water was made to trickle down it and fall into a basin, while the assistants kept up a running commentary on his supposed condition. 'He is getting faint; the heart's action is becoming feebler; his pulse is almost gone,' and other remarks of the sort. In a short time the miserable man died with the actual symptoms of cardiac syncope from hemorrhage, without having lost a drop of blood. (*Vide* note in Appendix, p. 282.)

There are some authenticated cases of apparent death being produced by auto-suggestion. We hear of this being accomplished by Indian fakirs and other religious enthusiasts in Eastern countries. Braid cites a remarkable, and, he believes, thoroughly well-authenticated instance of a distinguished holy man, who, to convince the Maharajah Runjeet Singh† that he possessed this power over himself, apparently died, and was laid in a sealed coffin within a vault, the entrance to which was also

* Quoted by Professor Hamilton, 'Text-Book of Physiology,' p. 569 (London, s. 1). On the other hand, Dr. Brown Séquard relates how a student in his class was able at will to bring about an arrest of the heart's action (*Rev. Hebdomnaire*, 1882, p. 36)

† This case is related in medical detail by Dr. McGregor in his 'History of the Sikhs,' p. 227. He was an eye-witness of the disinterment. There are other cases of a similar character, apparently well-authenticated. The late Sir Richard Burton wrote to me on the subject, stating that he had investigated cases of vivi-sepulture, and was convinced of their genuineness.

sealed and guarded by soldiers. After six weeks, the time appointed by himself, he was taken out of the tomb in the presence of the Rajah and of several credible witnesses, English as well as native, and found to display every appearance of death. Having been gradually revived by his own servant, the still ghastly-looking, corpse-like creature sat up and spoke, his first words being addressed to the doubting Rajah: 'Do you believe me now?'

The best warranted European case of the sort is that of Colonel Townshend, related as follows by Dr. Cheyne: 'He could die or expire when he pleased, and yet, by an effort or somehow, he could come to life again. . . . We all three felt his pulse first; it was distinct, though small and thready, and his heart had its usual beating. He composed himself upon his back, and lay in a still posture for some time. While I held his right hand, Dr. Baynard laid his hand upon his heart, and Mr. Skrine held a clean looking-glass to his mouth. I found his pulse sink gradually till at last I could not feel any, by the most exact and nice touch; Dr. Baynard could not feel the least motion in the heart, nor Mr S. discern the least soil of breath on the bright mirror. Then each of us by turns examined his arm, heart, and breath, but could not, by the nicest scrutiny, discover the least symptom of life in him. We reasoned a long time about this odd appearance, and, finding he still continued in that condition, we began to conclude that he had indeed carried the experiment too far; and at last we were satisfied that he was already dead, and were just ready to leave him. This continued about half an hour. . . . As we were going away we perceived some motion about the body, and, upon examination, found his pulse and the motion of his heart gradually returning; he began to breathe heavily and speak softly. We were all astonished to the last degree at this unexpected change.'*

* The starting-point of the movements of the heart is the excitation produced by the pressure of the blood on the sensory or centripetal

As sickness, and perhaps even death, may be produced by suggestion, so may be, and very often is, produced the cure of sickness. Towards this, however, auto-suggestion, though it might do much, does actually little or nothing, the natural reason being that the mind of a sick person, when left to itself, is prone rather to suggest morbid than health-inducing ideas, and so operates for mischief rather than in the direction of cure. Every physician knows how, by determined hopefulness and cheerfulness, a sufferer from functional, and even from curable organic disease, may facilitate the work of healing, and materially hasten his recovery.

In all ages wonderful cures, real amid a multitude of shams, have been wrought at holy places dedicated to various saints of various cults. Among the throngs of pilgrims to Mecca, to the sacred rivers and temples of India, to the shrines of Buddhist hagiology, there are some who, having made the outward journey wearily and painfully, do indeed turn homeward with the gift of health. A proportion of those who have limped or been carried to Lourdes and to a hundred other holy places of the Catholic Church, do leave behind them crutches that they no longer require. Some of the sufferers who worshipped the Holy Coat at Treves did truly receive in restored health the reward of their faith. Some wearers of relics and amulets are really the better for possessing them. The cheered, uplifted, and convinced mind works, sometimes with startling rapidity, on the diseased body.

For this same reason, touching for the king's evil did no doubt effect many cures. The royal progresses were

nerve fibres of the endocardium. If the contact of the blood with the endocardium be prevented, the heart ceases its pulsation, the physiological cause of the reflex action having been removed. If the chest, and consequently the heart, be compressed by a series of forced expirations and by holding the breath, so as completely to empty the lungs, and bring the muscular walls of the heart into close contact, we may succeed in stopping its beating. The performance of this experiment is not recommended, as it might have a fatal issue. *Vide* an article on 'La Mort simulée,' by Dr. G. Tourdes, 'Dictionnaire encyclopédique des Sciences médicales,' Paris, 1875

announced some time beforehand, and the sufferers along their route had often weeks in which to cherish the expectation of healing, in itself so beneficial; and in those days of faith, when a belief in the divine right of kings was universal and strong, the touch of the royal hand must, except in the most hopeless cases, have had a stimulating effect which may often have caused a healthful reaction. Even in our own times, a royal touch, accompanied by kindly words, has good effect. We read in the life of Victor Emanuel,* that in 1865, when the cholera was raging in Naples, and the panic-stricken inhabitants were migrating by thousands from the city, the king, wishing to give his people courage, went the round of the hospitals. 'He stood beside the sick-beds, and spoke encouragingly to the patients.' Before one of those already marked for death, the king stopped, and taking his damp, frozen hand, he pressed it, saying, 'Take courage, poor man, and try to recover soon.' The warm grasp of the hand, the strong cheerful words, the recognition of the king's face, had an agitating effect on the dying man. That evening the syndic visited the king, and said: 'Your majesty's coming is a joyful omen. I am happy to tell you that the doctors report a diminution of the disease in the course of the day, and your majesty has unawares worked a miracle. The man you saw this morning stretched for death is out of danger this evening. The doctors say the excitement of your presence caused the salutary crisis.' In Carpenter's 'Physiology'† numerous

* 'Life of Victor Emanuel,' by G. S Godkin, vol. ii., p. 213.

† 'On the Influence of the Nervous System on the Organic Functions,' chap. v., ninth edition. Perhaps the most striking example of the power of the will and imagination to affect function, and even to initiate it, is afforded in a few rare but well-authenticated cases collected by Dr. Dunglison ('Human Physiology,' vol. ii., seventh edition), and quoted by Carpenter, in which strong desire to furnish milk, combined with continued irritation of the nipple by the infant's mouth, has brought about a secretion of milk in the mammary glands of childless and unmarried women, and even of men. The not uncommon occurrence of pseudo-pregnancy, with production of all the subjective and many of the objective symptoms of real pregnancy, under the stimulus of a strong desire for children, affords evidence of the power of auto-suggestion. The historical case of Queen Mary is a familiar example.

examples are given demonstrating the influence of the mind and imaginative faculties on the different bodily functions, and we have only to consider a moment to recall many personal experiences pointing in the same direction.

We know how in impressionable persons the idea calls up the sensation. Thus talking or thinking of ants or fleas may produce irritation of the skin and formication, recollection of a certain dish may re-awaken its savour, and expectation of hearing a bell ring may so act on the auditory centres as to produce a subjective tintinabulation. The suggestion of a person's presence may call up his image, as in the well-known story told by Dr. Wigan. He was in Paris, and at a reception given shortly after the execution of Marshal Ney. All the world was talking about the deceased general and his tragic end, when the servant threw open the doors and ushered in a gentleman whom he announced as 'Marshal Ney!' A dead silence came over the company, and a shiver ran through them as they glanced towards the door, and so strong was the mental picture conjured up by the servant's blunder that many of those present seemed to see the familiar figure stalking into the room. These examples serve to show how suggestion in the waking state may produce tactile auditory and visual images by direct action on the highest centres, and they give us some clue to the phenomena observable in the states of hypnotism characterized by heightened suggestibility. In the sensory motor sphere we find the same phenomenon. The thought or idea of dancing often causes the feet to move in rhythm, just as the idea of a combat may lead us to clench the fist. The thought-readers' success depends on the fact that the idea upon which the subject's mind is intensely fixed is betrayed to the practised 'medium' by unconscious and involuntary muscular movements.

But it is unnecessary to multiply instances showing the influence of the mental states over bodily functions, as everyone must have numberless examples of it in his own

person. Mental discouragement and depression have as their accompaniments disinclination for exertion and very frequently a sense of bodily fatigue. Who has not felt such a combination of symptoms after disappointment and worry, and does not know that the removal of the cause is followed by immediate removal of the effect? A letter saying that the friend we mourned as about to die has recovered, or that the investment we thought hopelessly bad had turned out a brilliant success, not only removes the mental symptoms but also seems to put new energy into our actions. The sense of fatigue vanishes, the muscles become braced up, and there is an immediate demand for an outlet of energy which has been liberated by the removal of the inhibitory effects of despair. The counterpart is equally apparent, for we know and have experienced the effect on the depressed and wearied mind of a game of tennis or billiards, or any form of effort which acts as a derivative by calling off nervous action from overworked and enfeebled centres into other channels and fresh combinations. The philosopher is indifferent to privation and suffering because he is able to direct his thoughts into channels which are not affected by the ups and downs of ordinary life, and his philosophy is practically the outcome of the development of his power of inhibition.

Hypnotism in some cases enables us to do for our patients what the philosopher can do for himself. The case of Mrs. E——, quoted on p. 277, is an example of this.

I have recently seen a lady whose condition is in some ways a typical example of the connection between mental states and bodily functions. She is a woman of thirty-five, and is married and has children. She has no organic disease as far as can be ascertained, and spends more than half her time happily and naturally. But she is subjects to attacks of melancholia, and these generally come on every three or four weeks and last about a week. She goes to bed feeling well, but awakes utterly dejected and miserable after a disturbed sleep of two or three hours. Her whole appearance undergoes a change, she looks much older, her complexion becomes muddy and sallow and her skin dry and harsh, her eyes dull and heavy, her attitude and gait stooping and slow. The timbre of her voice alters,

and her speech becomes slow. At the same time the bowels become obstinately confined, and the water high coloured, thick and scanty. She also suffers at these times from constant frontal headache and loss of memory. During the attacks she suffers from insomnia, and when she does sleep she has disturbed dreams and is restless and agitated. It is interesting to note that she is naturally of an unusually bright and energetic temperament, and systematically overworks and strains herself. She comes of a neurotic family, and was scrofulous as a child. The attacks are often preceded by a period of unusual excitement and mental activity. In this brief sketch of a not unusual condition one sees the close connection between mental states and bodily functions, and it is not easy to say whether mind or body is the primary seat of disturbance. I am disposed to think that the symptoms depend on exhaustion of nervous energy in the highest centres of the cortical area, and that this exhaustion affects not only memory and sleep, but also nutritive and secretory processes.

CHAPTER III.

Power of Mind and Body increased by Concentration of Attention and Energy Suppression of one Faculty tends to increase the Development of others.—Concentration of Mind on one Idea in Somnambulism, and Performance of Tasks impossible when Awake. Some Tragical Results of Natural Somnambulism. Artificial or Hypnotic Somnambulism may be turned to Therapeutic Purposes.—Natural Sleep may pass into Hypnotic Sleep, and *vice versâ*. The Faculties may be aroused and intensified in Hypnotic Somnambulism.

I HAVE endeavoured to show how much the imagination (in its widest sense) may have to do with the health of mind and body; and I shall now try to point out that the effects of 'directed consciousness' are greatly increased under certain conditions, when the mind is so withdrawn from the consideration of all extraneous ideas as to be absolutely concentrated upon one object.

We have seen how concentration of mind-faculty, whether self-induced or brought about by some shock to the system, or some powerful external influence, can modify functions, and both produce and cure disease —sometimes gradually, but often, in the case of shock or sudden and overpowering influence, with a rapidity which seems almost miraculous.

We all know, and frequently by our own experience, that mind-concentration, brought about by some strong motive, will enable us to perform mental or bodily actions of which we would generally be incapable. Through it a man will achieve feats of strength far beyond his apparent muscular power, or will go boldly through dangers from which he would shrink if he paused to consider probable consequences. Or he will, in a limited time, execute a prodigious amount of intellectual work, possibly

of such startling excellence that he himself, in after-moments of less intensity, will be amazed at his own performance. Of course, concentration, if sustained at such a pitch, would in time be the ruin of mind and body; but we know that it is a necessary factor in the accomplishment of all great things, and that there can be no success in life for those who cannot command it to a moderate degree. Of this, we see a striking instance in Coleridge, who, with all his wonderful genius, brought a surprisingly small quantity of work to completion, for want of this mind-directing power. The less we have of it, the more our mental action tends to become automatic. The mind of a person unused to exercise it drifts undirected and undisciplined from one idea to another; he can hardly follow a line of thought to its conclusion, and his talk, and probably his actions, will be as inconsequent as his wandering fancies.

As a rule, happily, the organic functions which carry on life are purely automatic; but, as we have seen, it is possible to concentrate the attention upon them, and so affect their operation, sometimes beneficially, but far more commonly with detriment to the health of mind and body. Those bodily movements over which we have full control are also generally performed automatically. Under ordinary circumstances, we give no conscious thought to our steps in walking, to the motion of our hands while at work; these are nearly as automatic as healthy breathing. So likewise, in a general way, is the operation of the senses. We see, hear, feel without any effort of our will, unless some special motive impels us to exercise it. We concentrate our minds upon sight when we strive to see a minute, or indistinct, or distant object; and upon hearing when we listen for a faint or eagerly-expected sound. If such concentration is continuously brought to bear upon any sense, it will in time convey automatically the more intense impression which has been exceptional. Thus, in savages and in travellers and settlers in wild or dangerous regions, the senses of sight

and hearing are far more keen than in those who live under civilization. The senses of touch and hearing become exquisitely fine in the blind A blind man will sometimes hear sounds which are absolutely inaudible to ordinary ears, and recognise objects by touch as correctly as most people can by eyesight. Some blind persons seem, through concentration, to have developed a sense of space. On entering a room they can tell whether few or many persons are present; they can guess with wonderful accuracy the size and shape of an enclosed place, and have a curious power of avoiding any obstruction, such as an article of furniture, which may be in their way.* Dr. Laycock relates how blind persons are able to recognise their friends by touch alone, and cites several instances in which, from a subtle comparison of form, smell, texture, etc, they have been able to form correct ideas about colour. In the well-known case of Caspar Hausen, who was brought up in solitude and darkness, all the senses were of extraordinary acuteness, so that he could distinguish colours in the dark and hear sounds inaudible to other people. The more recent example of Laura Bridgman must be familiar to most readers. Though blind, deaf, and dumb from infancy, she possessed great intelligence, and kept up close relationship with the outside world through the development of the sense of touch. She was able to recognise her friends after months of absence by the touch of their hands. Hyperæsthesia of the special senses is not of uncommon occurrence in hysterical subjects; and I have met a young lady whose nights were rendered miserable by the noise made by billiard-balls used on a table at least fifty yards away, and quite inaudible to ordinary persons. Smell is almost a lost sense with a large proportion of civilized mankind, but in many hysterical and neurotic subjects it is developed to an even painful extent, so that persons and things are

* Most people have probably noticed that closing the eyes will, for the moment, render the hearing and touch unusually acute. Any sense may be intensified by mind-concentration, as in the case of tea and wine tasters, and of professional buyers of raw silk, who develop an unerring capacity of judging its quality by touch

readily distinguished by their odour. Such sensory hyperæsthesia is readily produced in the hypnotic state by suggestion, and explains many supposed instances of clairvoyance. Deaf people often develop the sense of sight to an extraordinary extent. By concentration of this faculty they are able, as we know, to follow a speaker by watching his expression and the motion of his lips. Their sense of touch also becomes more delicate; and occasionally they are able to enjoy music by feeling the vibration of air set in motion by its sound.

Concentration of mind upon intellectual or physical action is usually possible only in our waking and wakeful moments. Fatigue of brain renders us incapable of it; and in sleep, the natural consequence of such fatigue, we generally lose consciousness, and only exercise those functions which are performed automatically. In dreams consciousness is once more aroused, and we may even use some reasoning power, and be influenced from without through our senses. But in ordinary dreams there is no concentration of ideas upon an act to be performed or a goal to be reached. When a sleeper uses this effort of mind, he passes out of the region of dreams, and enters that of somnambulism.

The somnambulist never has that semi-consciousness of his state, and of the unreality of his fancies, which sometimes exists through a dream—when the sleeper *knows* that he is dreaming, and will even try to prolong his vision if it be delightful, and dispel it if painful. Such an exertion of will is impossible in somnambulism.* In this state all fancies *must* appear realities. The imagination is, as I have said, concentrated upon one object, and so completely that actions are as effectually performed as if directed by strong will-power. But an onlooker can easily perceive, by the expression and posture of somnambulists, that the discerning and judging faculties are in abeyance.

* In dreams, doubtless, it is possible only when the sleeper is close upon waking.

In somnambulism actions of extraordinary difficulty, such as could not be performed by the sleeper during his waking hours—except, perhaps, through mind-concentration caused by some overpowering impulse or motive - are accomplished with perfect ease. Persons in this condition will walk on the extreme edge of a precipice, climb dangerous heights, get out of a house through an upper-story window. There are numerous instances of this on record, of which I will quote two or three. Dr. Paul Garnier* gives one of a patient, a dentist's assistant, of feeble bodily and mental health, who frequently fell into a state of somnambulism. On one of these occasions he escaped by a window from the ward of the Hôtel Dieu, in which he was undergoing treatment, and, though a peculiarly unathletic person, walked easily and fearlessly along the sloping parapet of the façade a feat which a trained gymnast could hardly have accomplished. He awoke in the course of this dangerous performance, and had to be rescued by means of a ladder. With the return of consciousness reason awoke, and he understood the horror of his position. While blindly obeying his impulse he had acted automatically, and fear, which is a product of reflection and association of ideas,† had no existence for him.

A patient of my own, a young man twenty years of age, not an habitual somnambulist, but a sufferer from nightmare produced by chronic dyspepsia, on one occasion, while spending the night in an hotel, dreamed that he was confined in a dungeon from which he must escape. The dream no doubt passed into somnambulism, for under its influence he broke his iron bedstead—a feat of strength which, waking, he assuredly could not have accomplished—and tore up his bed-clothes. His amazement was great when he awoke in the morning amid the ruins of his own creation. He remembered his dream, but had no recol-

* 'Somnambulisme devant les Tribuneaux,' Paris, 1888.

† Infants, in whom of course neither is possible, will, if allowed, grasp at the flame of a candle, or a sharp instrument; and young children will fearlessly put themselves into positions of great danger.

lection whatever of the acts into which he had been led by it.

Dr. Bevan Lewis refers to a case of habitual somnambulism with which he is acquainted. The subject, a medical man, is frequently called up at night to visit patients. He gets up and dresses automatically, but is quite unconscious of his actions and of his destination until he is a considerable distance from his house ('Text-Book of Mental Diseases,' p. 150).

The hypnotic state, which stops short of loss of consciousness, has been aptly compared to that condition between sleeping and waking which is characterized by inertia of mind and body and by the greater or less abeyance of spontaneity. There is another similarity between the dream state and hypnosis. There are many cases on record, and most medical men must have met with instances in practice, where the morbid condition either took its rise from or was coincident with a terrifying or painful dream. Hysterical paralysis not uncommonly commences in this way, and it is probable that certain neurotic troubles take their form from the influence of dream-suggestion. In incipient insanity the delusions which subsequently become permanent and rampant are often at first only experienced either in dreams or in the moments of incomplete wakefulness, and their occurrence is due either to morbid auto-suggestion or to the influence of morbid conditions on the mind in the sleeping state which in waking moments are either not noticed or are corrected by the intelligence. It seems possible for healthy suggestion to combat and conquer many of the conditions which are thus ushered in.

I have recently attended a case in point. The patient, a lady of thirty, had always been neurotic, and had suffered from indifferent health. She was, however, able to get through life fairly well until in September, 1890, she went to stay away from home. In the evening the assembled company set themselves to tell the most blood-curdling stories they could think of, with the result that Miss X—— retired to her room in a state of terror, and with unstrung nerves She had to sleep alone, a thing she was unaccustomed to, and this added to her alarm. In the middle of the night the house was aroused by screams proceed-

ing from her room, and when an entrance was made Miss X—— was found in an attack of violent hysteria. When she recovered from the fit she was only able to remember that she had had a terrifying dream embodying the stories she had heard. From that time her health completely gave way; she started at the least sound, ingestion of food was always followed by vomiting, and obstinate insomnia supervened. She underwent a six weeks' course of Weir Mitchell treatment, from which she derived no benefit, and then, after a further three months of misery, expressed her wish to try hypnotism. She was not an easy subject, as her mind was in such a condition that it was almost impossible to fix her attention, and at first, whenever she felt going off, she could not help pulling herself up with a start. However, perseverance prevailed, and from the moment she was slightly influenced she began to improve. She is now (after two months' treatment) in about the same state of health she was in before the attack.

Dreams merging into somnambulism may produce tragic results. Dr. G. Tourdes* relates how a man sleeping beside his wife dreamed that she was a robber whom he must kill. He accordingly attempted to suffocate her with a pillow, and it was with great difficulty that she succeeded in waking him, and so saving her life.

In 1843 a young man was tried for the attempted murder of an innkeeper at Lyons.† He had arrived at the inn towards nightfall, and was allotted a room. In the dead of night loud cries were heard from this room, and the landlord, rushing in to see what was the matter, was set upon by his guest and seriously wounded. It was ascertained that the young man was a somnambulist, who had dreamt that the landlord was murdering the occupants of a room near his own, and that he was defending them. He was, of course, acquitted. A case is also recorded by Drs. Guy and Ferrier, in their 'Forensic Medicine.' 'Two men, being in a place infested by robbers, engaged that one should watch while the other slept. But the watcher, falling asleep, and dreaming that he was pursued, shot his companion through the heart.'

We have many instances of mental work being accomplished during somnambulism. Professor Wœhner,‡

* Article 'Sommeil,' 'Dictionnaire Encyclopédique des Sciences Médicales.'

† 'Dictionnaire Encyclopédique des Sciences Médicales,' article 'Somnambulisme,' by Drs. Ball and Chambard.

‡ 'Dictionnaire Encyclopédique,' etc.

of Gottingen, after vainly trying for several days to write a Greek poem on a given subject, composed it successfully while in this condition, which probably was brought about by the mental strain of his previous futile efforts.*

A clear case of somnambulism was that of a clergyman, whom his wife saw rise from bed in his sleep, go to a writing-table, and write rapidly for some minutes. This done, he returned to bed, and slept on until morning. On awaking, he told her that in a dream he had worked out an argument for a sermon, of which he now retained no recollection whatever. She led him to the writing-table, and showed him the written sheet, upon which he found his argument worked out in the most satisfactory manner.

It rarely happens, however, that solutions of problems, poems, etc., written by persons in this state, have any value. They may begin well, but generally drift into nonsense, probably because the mental concentration has been dispelled by some new idea crossing the first, and displacing it.

Habitual somnambulism may be natural—that is, may exist without any actual disease, though it is hardly ever found in persons of robust bodily and mental constitution. It is not uncommon in delicate or nervous children and young persons, but if with advancing years the mind and body gain strength, the tendency to it is likely to decrease and finally disappear. *Accidental* somnambulism is directly produced by illness or mental strain, and may occur in normally healthy persons of great intellectual power. When the state is habitual or frequent, the somnambulist may be said to lead two lives, one almost distinct from the other, and to have two entirely unconnected memories. Memory, as we generally understand it, is dormant during somnambulism. The sleeper remembers nothing that has occurred during his waking hours, and,

* Coleridge's poetical fragment, 'Kubla Khan,' was probably composed in a dream—not in somnambulism—as he remembered and wrote it down on awaking.

when he again awakes, has no recollection of his actions during the somnambulistic state. Yet, in his next attack of somnambulism, the memory of these is likely to come back to him.

The effect of natural or accidental somnambulism on the health is anything but beneficial. An attack is generally followed by feelings of weariness and discomfort, for which the subject is at a loss to account. The concentrated mind-power does not operate in a beneficial direction, but impels the sleeper to bodily or mental effort likely to have an exhausting and hurtful effect upon him. But the artificially-produced mental condition seen in hypnotism can be turned to therapeutic uses, and be made to fill a void which no other plan of treatment can reach. Dr. Bernheim considers hypnotic sleep analogous to the natural state, with the important difference that in natural sleep the subject is only in relation with himself, whereas in the artificial state he is in relation with the operator, who is therefore able to direct the thoughts into the channel he wishes. That it resembles natural sleep is proved by the fact that it is possible in certain cases for one to pass into the other. Dr. Van Eeden told me that a patient of his, a gentleman, wearied by long waiting and exhausted by the heat, fell asleep in the waiting-room. The doctor came in, and, seeing him asleep, said, 'Don't wake, but come with me into my consulting-room.' The patient got up and, with assistance, did as he was desired. After the treatment was over he was led back in the same way to his former seat in the waiting-room, and allowed to finish his sleep. He soon awoke, apologized to the other patients for having slept, and expressed surprise that his turn had not yet come for seeing the doctor. Great was his astonishment when he was told that the seance had taken place and was finished without his knowing anything about it. Dr. Maury,* who cannot be accused of being too easily influenced, gives some instances in which, while sitting by his fireside

* 'Le Sommeil et les Rêves,' Paris, 1865, p. 42.

dozing after dinner, he had heard, as in a dream, the words uttered by his wife and friends, and had followed out the train of thought suggested by them in his dreams, and had even acted upon suggestions so made.* If a person is very tired it is frequently possible to obtain an answer to a question whispered in his ear without awakening him. Dr. Hack Tuke and Mr. Braid give several examples of this in their writings.

Braid, for instance, tells of a naval officer who was the subject of many practical jokes. He entertained and, without awaking, acted upon any idea which was suggested to him when asleep. On one occasion, while lying in his berth, he was told that his ship was in action, and that his men were fighting all around him. His face immediately assumed an expression of martial excitement, and he wielded an imaginary sword. His friends supplied details of the fight, telling him that the battle was going against them, and that his dearest companions were being killed; then his expression changed to one of fear. Finally, when told that all his friends were slain, and that the rout was complete, he leaped from his place and fled with an aspect of terror. I have myself spoken to and received answers from nurses who had fallen asleep, worn out by long hours of watching; and examples of such automatic answering must be familiar to most people. On the other hand, patients in the hypnotic sleep sometimes pass into the natural state, when they are no longer in relation with the operator, but follow their own ideas in ordinary dreams.

The close analogy between sleep and hypnotism is shown in many ways If a person is hypnotized every night, hypnosis may be made to take the place of sleep for an indefinite time, and the only difference observable

* He relates how, on one occasion, he was sitting in his easy chair half awake, when his wife spoke to him. He was awakened by the words, and remembered them, but was quite unable to tell whether he had uttered them himself, or whether they were his wife's. On this he remarks. 'How many actions and ideas are daily suggested to us by others which we act upon, thinking they are our own!'

in the two conditions would be that in hypnotic sleep the patient would not be easily aroused, if at all, and would be *en rapport* with the operator. The experience of one of my patients also points to this close resemblance. When not able to sleep at night he now repeats on himself the process I used to adopt with him, viz., gentle stroking of the forehead. He tells me this never fails to send him to sleep in a few minutes. It would be interesting to ascertain if the sleep so induced possessed the characteristics of the hypnotic state. It is frequently possible to suggest dreams to the somnambulist. Thus I told an officer to dream that he was in Jamaica, and playing polo at Up Park Camp. When he awoke he volunteered the remark that he had had a most vivid dream, and proceeded to describe a polo match, of which he had filled in the details without help from me.

As in natural somnambulism a person may be able to do things of which he is at other times incapable, so in the artificially-produced condition he can sometimes be made to excel himself. Dr. Beaunis found in experimenting with the dynamometer that the muscular power could be greatly increased at times by suggesting in the hypnotic state increased strength and effort; and one frequently finds that the grasp of an enfeebled patient can be perceptibly strengthened by similar suggestions. The therapeutic bearing of this experiment is easily seen.

Dr. Grazzini, of Florence, has kindly sent me some copies of drawings done, while in a state of hypnotic somnambulism, by an uneducated man who in waking moments hardly knew the use of a pencil. These copies are faithfully and well executed, but probably the man would have been quite unable to initiate a design. The faculty of imitation was strengthened by the hypnotic condition, and at the same time he concentrated all his attention on the figures, and took infinite pains to reproduce them. I have frequently told somnambulic subjects that on awaking they are to write such and such a sentence with their left hand, and have invariably

found the task accomplished fairly well, though in many instances I have heard the same person before the operation declare it impossible, and found him unable to make an intelligible letter. This may prove a practical hint in the case of left-handed children.

An artist under the same circumstances would no doubt produce a drawing in his usual style; and a musician, in a similar way, if asked to play, would perform some familiar air. Whatever a man's natural disposition might be, it would come out if he were in a state of profound hypnotic sleep; but we shall see that 'suggestion' in this condition has power to modify even life-long habits and deep-rooted tendencies.*

* Frequent repetition of the suggestion, especially if done with confidence, has what may be called a cumulative action, expressed by Professor Delbœuf in a kind of mathematical formula. This, of course, is also the case in our waking moments, and is well understood and turned to account by advertising tradesmen. The announcement in confident language on every blank wall that 'Johnson's soap is the best,' becomes, by constant repetition, almost an axiom, and we are inclined to accept its truth. In the same way it is told of George IV. that from constantly repeating the story of his being at Waterloo, he at length got to believe that he had really taken part in the battle.

CHAPTER IV.

Dr. Liébeault of Nancy.—Description of his Treatment.— System free from Mysticism. Curative Suggestions.—Explanation of the Phenomena.—Definition of Hypnotism.—Absolute Sleep or Unconsciousness unnecessary for Curative Treatment.—Theory of Professor Charcot not accepted by the School of Nancy.—Proportion of Persons Hypnotizable and Degrees of Hypnotic Influence.—Phenomena of Somnambulism outside the Sphere of Psycho-Therapeutics.

I HOPE to have shown in the preceding chapters that Dr. Liébeault's system is the outcome of the collection and classification of many isolated facts previously neglected or misunderstood. That cures have been and still are worked by such means as are implied in faith-healing, the mind-cure, etc., and by charms and relics, is beyond doubt; but it is not in the supernatural that we should seek for the explanation of them. They all proceed from the same cause, and on the same lines. We have, first, the patient's strong desire for cure; and, secondly, his firm belief in the efficacy of the means used; while to these may generally be added the presence of a sympathetic and impressive environment. The reasonable and deliberative side of the patient's brain is suppressed, while the emotional or instinctive side is developed, and in proportion as the latter is predominant the greater generally is the success of the treatment. The Nancy school obtain, in suitable cases, as good results as it is possible to expect; but they work on scientific principles and by recognised laws.

A brief account of the treatment practised at Nancy, and of the theory which explains it, will, I think, make this clear.*

* Dr. Rolleston gives an interesting account of a visit to Nancy in

If the visitor to Dr. Liébeault's dispensary be one who measures results by the impressiveness of the means used, he will surely be disappointed to find how commonplace are operators, patients, and building. The rooms are unpretentious, and even shabby; the patients are ordinary looking people enough, belonging mostly to the artisan and labouring classes; and the doctor himself, though he has goodness and kindliness written on every feature, is of unimposing presence; while his habit of chatting on all sorts of subjects with the persons around him, even while receiving patients, has an odd and hardly impressive effect.

The patient paying his first visit is directed to sit down and watch the treatment being applied to others. This gives him confidence, and arouses that imitative faculty, which is so active in childhood, and is never lost throughout adult life. When his turn comes, he is told to take his place in an arm-chair, and to make his mind as much a blank as possible—'to think of nothing at all'—and to fix his eyes and attention on some special object; almost anything will do, from the operator's face or hand to a mark on the ceiling or the pattern of the carpet. Then the phenomena which attend the on-coming of natural sleep are gradually 'suggested' to him: 'Your sight is growing dim and indistinct; your eyelids are becoming heavy; a numbness is creeping over your limbs; my voice seems muffled to you; you are getting more sleepy; you cannot keep your eyes open.' Here the eyes close of themselves, or are closed by the operator, and it is generally found that the patient is indeed asleep.

About two minutes of this 'talk about sleep' will usually produce the hypnotic effect on a new patient; and on subsequent visits even less time is required.

The patient being more or less influenced, Dr. Liébeault now proceeds with the treatment proper. This consists essentially in directing the invalid's attention to the part affected, and suggesting an amelioration or disappearance

St. Bartholomew's Hospital Reports, 1889, and Dr. Cruise describes his visit in the Dublin *Journal of Medical Science*, May, 1891.

of the morbid condition and symptoms. To take a very simple case—let us suppose that the malady is chronic nervous headache. The part of the head affected is gently rubbed, so that the patient's attention shall be attracted to it, and he is told that the pain is to disappear—that he will awake feeling his head cool, clear, and comfortable, and that there is to be no return of the trouble. In ordinary cases the whole process will not have lasted more than five minutes when Dr. Liébeault brings it to a close by arousing the patient, which he does by telling him to open his eyes and awake. This is generally enough; he awakes as from ordinary sleep, and is told to vacate the armchair in favour of the next patient. When asked how he feels, he will generally reply that he is better, and very often that the pain has entirely vanished. He is quite his natural self, and can leave the room at once and go about his work as usual Long acquaintance with the system prevents an inhabitant of Nancy from regarding it as anything remarkable, and a sick person consults Dr. Liébeault just as he would consult any other physician, with the simple idea that the treatment will do him good. He does not trouble himself with metaphysical theories, but is content to know that some acquaintance has been cured of a complaint similar to his own, and that he himself hopes to be relieved in a few days. Liébeault generally places his hand over the epigastrium, and applies gentle friction, suggesting as he does so a sensation of warmth. He regards a responsive glow as almost essential to the success of subsequent treatment, and it is the first link in the chain which constitutes *rapport* between physician and patient. The fulfilment of the first suggestion tends to augment the patient's confidence, and leads to the more ready reception of those which follow. This point is one of great practical importance, and we generally feel that we can do good when we can induce this responsive warmth, no matter how slight the hypnotic influence may be. The feeling is quite different to that produced by simple friction, and

requires to be felt to be appreciated. The magnetisers attributed it to the passage of magnetic fluid from them to the patient; but as we regard all the manifestations of hypnotism as subjective we must of course seek another explanation. This is found by supposing that the sensation is due to action on the vaso-motor system through the solar plexus, allowing a sudden afflux of blood to the part. The warmth is not merely imaginary, for it is appreciable to the touch and by the thermometer, and is in fact analogous to blushing.

If the hypnotic sleep has been profound, it may be necessary twice or thrice to repeat the order to awake, and even to enforce it by fanning the patient, or blowing gently upon his eyes; but the simple command is nearly always sufficient.

There certainly is nothing mysterious in all this, and Dr. Liébeault seems to take pleasure in making his whole mode of treatment clear to any serious inquirer, and in giving the rational explanation of everything that he does. He directs the patient to fix his attention on a certain point in order to strain the accommodation of the eyes and tire the sight. The effect of the strain is to cause dilatation of the pupils and consequent dimness of vision. The feeling of heaviness in the eyelids results from the fatigue of keeping them open in a strained position, and the assertion that the eyes are becoming tired and the sight dim is therefore founded on physiological data, and is not guesswork. The eyes being tired, the natural impulse is to close them, and this act calls up a previous association of ideas connected with fatigued or confused sight. That association points to sleep, towards which the patient is rapidly led, aided by the monotonous tones of the operator suggesting it to him, and by his mind being free from all disturbing thoughts, and his nerves from all external stimuli. He falls asleep, in fact, much in the same manner as one does when reading a dull book or listening to a not too brilliant discourse. Dr. Maury, in his well-known book on sleep and dreams, says, 'The

less the mind is occupied with ideas the more easily can the thoughts be directed into any given channel. If nothing claims our notice or holds our attention, the cerebro-spinal system, for want of that gentle stimulation which is necessary to it, falls into a state of semi-torpor inseparable from atony of the nervous system.'

In the chapter on sleep in Carpenter's 'Physiology,' various conditions are mentioned as being favourable to it, one being the desire for it, another the expectation of it. We expect, from previous experience, that if we lie down in a certain place, sleep will follow. The faculty of imitation helps to bring it about; when we see others dozing we naturally incline to follow their example, and at night the consciousness that all around us are asleep disposes us to seek the same condition. Talking about sleep is apt to induce somnolence, just as talking about food may provoke hunger. And a monotonous sound, such as the droning voice of a speaker, or the breaking of gentle waves upon the seashore, tends to encourage slumber. Thus it will be seen how closely the artificial method I have described follows natural rules. This method may fail, just as we may fail to obtain natural sleep, or may battle it off should we desire to remain awake. If a patient wishes to resist the somnolent influence, he can do so by refusing to concentrate his thoughts, or by inducing some physical discomfort—for instance, by placing himself in an uneasy position. Strong emotion, such as anger or fear, will prevent the hypnotic sleep; so will severe pain, hunger, thirst, and indeed anything which preoccupies the mind or agitates the nervous system. Constitutional idosyncrasies affect this just as they affect the normal sleep. The naturally restless sleeper will be restless, and he who commonly goes off as soon as his head touches the pillow will quickly succumb to the hypnotic influence. The extent to which a person is influenced varies according to his mental and physical condition. If he is of restless and flighty temperament, it may be impossible to fix his attention for even

the few minutes that are necessary, and no effect is produced—except, perhaps, an inclination on his part to treat the whole affair as a jest, and a consequent irritation on the part of the doctor. But in ordinary cases some effect is certainly produced, if not on a first visit, still on subsequent ones. This effect will vary in various patients, some feeling only a heaviness and torpor, with a disinclination to open the eyes, while others fall into a more or less profound sleep, or into a state of somnambulism. Dr. Liébeault divides the sleep into six different stages,* but as these really merge imperceptibly into each other, the division is purely arbitrary, and is made for convenience in classification. They may be shortly summed up as: 1. Light sleep; 2. Profound sleep; 3. Somnambulism.

The first and second stages closely resemble and are analogous to ordinary sleep; but the third is *sui generis*, and will require a few words later on. Though it is analogous to natural sleep, there is one very important fact which shows that the conditions are not identical. If an ordinary sleeper is spoken to, he is generally aroused by the stimulating effect of the sound conveyed to the brain through the auditory nerves, but one in the hypnotic state may be talked to without being disturbed—the effect will, on the contrary, be soothing. He is, in fact, *en rapport* with the outer world, though only to a limited extent, whereas in natural sleep he is *en rapport* only with his own consciousness.

Upon this difference depends the possibility of applying curative suggestion. Carpenter (*op. cit.*) says that the very closure of the eyes renders the other senses more acute; and we have seen that the inactivity of one sense is nearly always compensated for by increased sensitiveness of the others. Now in the hypnotic state all the senses are more or less torpid and in abeyance until called into play by the operator. Physiologists suppose that during activity the nerve-centres are continually dis-

* See Appendix, p. 171, note 7.

charging nervous energy in all directions, in response to stimulating impressions received through the senses; but in sleep, a state of inactivity is induced, and the nervous force accumulates in the brain-cells. Natural sleep comes as a consequence of fatigue, and because the store of nerve-energy is nearly or entirely exhausted. During its continuance a fresh store of nerve-energy will be laid up, and if it be undisturbed, the store will go on increasing until sufficient is acquired for complete nerve recuperation. This point attained, the sleeper, if in good mental and bodily health, will awake naturally, and feel no further desire for slumber. But as the hypnotic state may be produced at any time in the twenty-four hours, and long before any perceptible inroad has been made on the store of nerve-energy laid up during the previous natural sleep, it follows that during the artificial sleep there may be great accumulation and excess of energy. All this can be concentrated and directed into any channel the physician may desire; and this concentrated and directed nerve-force must naturally affect the system more powerfully than any ordinary nervous impression. This fact may explain the rapid production of congestion to a given part (alluded to in Chapter V.), and also the sensation of warmth usually experienced in any part to which the attention has been drawn. It also accounts for the success of the treatment in some cases of paralysis of long standing.

We may imagine in such a case, and the surmise would probably be physiologically correct, that the nervous channels are blocked to ordinary impulses sent to them from the brain, but that the extraordinary impulse from an accumulation and concentration of nerve-force is sufficient to break down and overcome the obstruction; as a dam which easily withstands ordinary currents is swept away upon the bursting of a reservoir, by the rush of accumulated water.

Bernheim defines hypnotism as *the production of a psychical condition in which the faculty of receiving impressions*

by suggestion is greatly increased. But this is only half the truth, for not only is the receptivity increased, but the power to act upon and carry out the suggestion is increased likewise. Suggestions have all the force of commands, and the patient will strain every nerve to obey them. They are received as true, and the idea tends to be realized and to be carried into execution as action. If he is told to move a paralyzed limb, or to speak after months of loss of voice, one can see what intense effort he puts into the attempt to comply. A stammerer making such effort will speak fluently, and a deaf person will distinctly hear a whisper. To express adequately the cause of such effects, the word 'suggestion,' in English at least, is far too weak and therefore somewhat misleading.

The increased force of suggestion does not depend so much as one might suppose on the profoundness of the sleep. In the case of deafness, referred to above, the hypnotic effect was extremely slight; and, on the other hand, I have heard a person in a state of decided somnambulism argue with the operator as to the correctness of his assertions. In applying suggestion, all that is necessary is a state of increased receptivity of ideas suggested by the operator, and an ignoring of other impressions. This attained, it matters little from a therapeutic point of view whether light sleep, profound sleep, or somnambulism, is produced. My own experience, like that of all observers whom I have known, is that good results are effected when there has been no loss of consciousness, and even when the patient denies having felt any hypnotic influence.* Dr. Arthur, of the East-End Wesleyan Mission, has shown me a case of obstinate intercostal neuralgia cured in a single sitting, though the patient, a

* A gentleman, whom I have treated for various nervous affections, always denies having slept, and protests that he has remained conscious of everything going on around him. Yet if I put some small article, such as a paper-knife, into his hand during the sleep, and tell him to hold it tightly, he will do so, and on being aroused will show surprise at finding himself grasping it.

seafaring man of over forty, barely felt a slight degree of somnolence. He could have opened his eyes at any moment, but, and this is the important point, he was very conscious of a glow of reflex warmth when Dr. Arthur passed his hand over the seat of pain and suggested it.

Consciousness is lost only in the advanced stages of profound sleep, and even when this has occurred there is often partial remembrance on waking of many things that have happened during the sleep. A patient in profound sleep may be questioned, and will probably return answers, unless the question be put too brusquely, when it will be likely to wake him, or too gently, when he may shirk replying; for a person in this state dislikes being disturbed, and is especially unwilling to exert his reflective faculties. Nevertheless, if questioned as to his complaint, he will describe his symptoms truthfully, and thus may help the physician in his diagnosis and treatment.

Bernheim seems to accept the theory of Herbert Spencer,* and of most psychologists, that two sorts of nervous action go on within the brain the one automatic and instinctive; the other rational, volitional, and deliberative Hypnotism suppresses the latter (the *Ego* of some psychologists), and allows full play to the former. It follows that where the second kind of nervous action prevails in an individual, he is less liable to be acted upon by external impressions, and is less the creature of impulse than one in whom the first kind is predominant. The more a man's actions are the result of impulse rather than of reason, the more susceptible he is to external impressions, and therefore to suggestive treatment.†

This brings us to the question, Who are the best subjects for the treatment, and how far is it applicable to the bulk of mankind?

* 'Principles of Psychology.'

† He who obeys his instincts, and instantly knocks down a man who has insulted him (this being a purely automatic action), would thus be a better subject for hypnotism than he who deliberately calls a policeman and goes in for damages.

Professor Charcot asserts that it is suitable, and indeed possible, only for hysterical subjects, and that hypnotism is a pathological condition, or induced neurosis. He divides the hypnotic sleep into three well-defined stages: 1. Lethargy; 2. Catalepsy; 3. Somnambulism; and contends that there is a regular sequence in these, and that, according to the will of the operator, one or other can be produced.

He obtains a state of lethargy by fixing the patient's eyes on a given point, or by gentle pressure on the eyeballs. This state resembles natural profound sleep, but is distinguished from it, and from all other conditions, by a characteristic feature—neuro-muscular hyper-excitability; *i.e.*, if one presses a nerve, the muscles supplied by that nerve will be put into action, and if a muscle is stroked or pressed, it will contract. Thus pressure on the ulnar nerve will, in Charcot's subjects, produce flexion of the third and fourth fingers, adduction of the thumb, extension and separation of the first and second fingers. It passes into the second stage when the eyelids are opened: cataleptic rigidity may now be produced in a limb, and it may be bent or placed in any position. Moreover, emotions corresponding with the position are evoked. If the subject is put into a pugilistic attitude, his expression will become fierce and determined; if into one of prayer, he will wear the aspect of devotion. Moreover, if only one eye be opened, one-sided catalepsy is produced, and the other side remains lethargic. A bright light or sudden noise will also produce this condition, and in closing the eyes the subject falls into lethargy. The third stage is produced from the first or second by gently rubbing the top of the head, when the cataleptic condition will vanish, and other characteristics will appear, chief among which are abnormal acuteness of the senses, and obedience to suggestion.

Though I have completely failed to find these three stages in any of my somnambulic subjects, and though the experience of most observers is of an equally negative

character, I am not prepared to say that they do not occur in a few hysterical subjects without suggestion. Dr. Grazzini, of Florence, and Dr. Berwise, of Blackburn, tell me that they have elicited them spontaneously.

Drs. Liebeault, Bernheim, Beaunis, and others of the Nancy school deny the existence of these three stages. They assert that their experience in treating hypnotically a vast number of patients leads them to the conclusion that nothing resembling them has been or can be evoked *spontaneously*. They consider, in fact, that Professor Charcot has introduced a new hysterical condition into the Salpêtrière, and that this has become as it were an institution of the place which every new-comer hastens to comply with. They support this assertion by showing that when they in their Nancy practice explained to hysterical patients the effects produced by Charcot, the three stages, never before manifested, were forthcoming. Bernheim has well said: 'Méfiez-vous de la suggestion,' and an English physician has given an equally sage warning: 'Take care, or you will find what you are looking for.'* Charcot has thus entered the field weighted with a theory which he seems unable to shake off. If one of his school is shown a broad-shouldered navvy or a sun-dried old soldier in a state of profound hypnotic sleep, and is asked whether this looks like an hysterical subject, he will reply that appearances are deceptive, and that the very process of hypnotizing has developed a latent condition of hysteria, or one analogous to it.† The disco-

* Braid was at one time misled into supposing that by touching the phrenological 'bumps' he produced corresponding effects. For instance, if he touched the 'bump of Destructiveness, the subject immediately proceeded to hit out and to destroy whatever was within his reach; if that of Benevolence, he would give away his watch, purse, etc., to any bystander. The fact is, that the sense of sight (under the apparently closed eyelids), that of hearing, etc., are so abnormally acute in somnambulists, that the slightest hint of expression, voice or touch, is sufficient to evoke from them the desired response.

† The fanciful method adopted by Charcot to produce the hypnotic state may give rise to unexpected results. Some of his highly 'educated' subjects fall into a state of catalepsy if a bright light is suddenly turned full on their eyes, and by the action of this excitant

veries of Professor Charcot in physiology and pathology fully entitle him to the world-wide reputation which he enjoys; but the attitude he has chosen to adopt towards hypnotism is unfortunate. By attaching undue importance to *le grand hypnotisme*, as seen in his subjects at the Salpêtrière, and by ignoring what his school calls *le petit hypnotisme*, and confining his researches to hysterical cases, he has retarded the progress of rational hypnotism. Of the considerable number of medical men I have met who have attended Charcot's demonstrations, not one has looked upon hypnotism as more than a toy, and not one has adopted it for the treatment of disease; whereas all those I have met who have studied the subject at the *cliniques* at Nancy have been thoroughly convinced of the value of the treatment, and have adopted it into their practice.* To my mind, the great merit of Dr. Liébeault is that he approaches the subject with only one end in view—the relief of disease. If the theories he has deduced from observed facts (for every man who is not a mere empiric must hold theories) do not, after closer observation, continue to correspond with them, the theories are thrown over, and not the facts, as too often happens. The Nancy school may therefore be called practical and

---

a hysterical patient of his was lately taken *in flagrante delicto*. She had stolen into a room, gone to a chest of drawers, and actually placed her hand on a coveted photograph which she intended to abstract, when a bright ray of light shot through a chink direct into her eyes, and she remained entranced and motionless until she was discovered. (*Revue de l'Hypnotisme*, October, 1889.) I have never heard of the hypnotic condition being thus involuntarily and spontaneously induced when the Nancy method has been employed.

* Perhaps here I may be allowed to say that my own experience in this matter is a very pleasant one. It has been my privilege to demonstrate the Nancy treatment to a large number of medical men, and not only have they been kind enough to express appreciation of what they have seen, but they have practically shown it by at once trying the method in their own practices. Doctors are naturally only too pleased to adopt a new treatment which has been proved useful and which will help them to deal with many troublesome cases; but it requires to be presented to them in a manner free from mysticism and exaggeration. The enthusiasm the good Dr. Liébeault shows is a part of his character, and lends a great charm to his advocacy of hypnotism; but discretion is the better part for his followers, and I think they fully realize this.

therapeutic, in distinction from Charcot's, which is theoretical and experimental.

The following table, taken from Professor Beaunis's work, proves what a mistake it is to suppose that only hysterical persons are influenced by the treatment.

Patients submitted to hypnotization by Dr. Liébeault in 1880 (1,014):

Not influenced	27
Drowsiness	33
Light sleep	100
Heavy sleep	460
Very heavy sleep	232
Somnambulism (slight)	31
Ditto (advanced)	131
	1,014

Professor Beaunis shows as follows the percentage of the different stages of hypnotism at different ages:

	Somnambulism.	Very heavy sleep.	Heavy sleep.	Light sleep.	Drowsiness.	Uninfluenced.
To 7 years	26·5	4·3	13	52·1	4·3	—
7 to 14 „	55·3	7·0	23	13·8		
14 „ 21 „	25·2	5·7	44·8	5·7	8	10·3
21 „ 28 „	13·2	5·1	36	16·3	17·3	9·1
28 „ 35 „	22·6	5·9	34·5	17·8	13	5·9
35 „ 42 „	10·5	11·7	35·2	28·2	5·8	8·2
42 „ 49 „	21·6	4·7	29·2	22·6	9·4	12·2
49 „ 56 „	7·3	14·7	35·2	27·9	10·2	4·4
56 „ 63 „	7·3	8·6	37·6	18·8	13	14·4
63 and above	11·8	8·4	38·9	20·3	6·7	13·5

These statistics refer, of course, to Nancy, and, as has been already pointed out, that town is pervaded by an atmosphere of hypnotism and suggestion. But my friend Dr. Van Eeden assures me that at Amsterdam he finds the proportion of the 'uninfluenced' but little larger, and the experience of Moll in Berlin, Wetterstrand in Stockholm; Bramwell, of Goole; Kingsbury, of Blackpool; Cruise, of Dublin, and other observers all over the world, is of a

similar nature. The proportion of somnambulists, however, is undoubtedly much greater at Nancy than we could expect to find it in England. Among over five hundred patients I have as yet found only about fifty.

And here a word on the subject of somnambulism. Though Dr. Liébeault and his followers do not seek to enforce the somnambulic state, but find a state of gentle lethargy or drowsiness sufficient for ordinary curative purposes, he considers that it is well to induce in the patient the most advanced state of hypnosis to which he is susceptible; for the more complete the hypnosis the less liable are the patient's morbid auto-suggestions to interfere with the curative processes. As natural somnambulism is nearly always associated with mental or bodily weakness, so the artificial variety is, I believe, found chiefly in patients whose minds are weakened by hysteria or an allied nervous condition, or whose bodies are enfeebled by phthisis or some other wasting disease. There are, however, very many exceptions to this, and I should be sorry to class all the somnambulists I have seen as even 'neurotic.' Private soldiers and agricultural labourers are not generally so considered, but they are 'good subjects' for hypnotism, and a large proportion—perhaps a fourth—will be found to become somnambulic. Somnambulism is not an essential product of hypnotism, and, interesting though its phenomena may be from a pathological and psychological point of view, they are no more a part of suggestive treatment than an exhibition of the poisonous effects of drugs is a part of ordinary medical practice. They help to elucidate points in the treatment, and therefore must be studied, but experimentation upon them is outside the scope of the physician, as such.*

* See Appendix. Hypnotism being a new thing in England, the knowledge of it seems chiefly confined to theory, and one has to hear many fanciful and exaggerated statements For instance, in an article on the subject in the *Saturday Review* of December 8th, 1888, *à propos* of a paper of mine in the *Nineteenth Century* for December, the writer, evidently a medical man, states that a person once hypnotized is at the mercy of the operator, who can repeat the operation at will, even without the consent of the patient. Further, that anyone can easily

hypnotize a person who has once submitted to hypnotism ; and again, that a person once hypnotized is unable to look people in the face without feeling an irresistible desire to sleep. I have made inquiries among my patients of both sexes, some of whom have been hypnotized many times, and have fallen into the profounder degrees of sleep. They can all certainly look me in the face for any length of time without feeling in the least degree sleepy ; and they all tell me that until they entirely give up their minds to the operation no soporific effect is produced. Most misleading conclusions have been drawn from exceptional cases, such as that of the 'Soho sleeper.' These belong in no sense to hypnotism as a therapeutic system, but are examples of hysteria. Constantly hypnotizing a weak-minded person for experimental purposes will probably bring about a morbid state of brain, and such abuse of a therapeutic agent can only be deprecated and discouraged.

CHAPTER V.

Psycho-Therapeutics not an exclusive System of Treatment.—Some Diseases found to benefit from it.—Organic Processes affected by Hypnotic Suggestion. Blisters and *Stigmata* so caused. Treatment especially useful in Neurotic Diseases.—Hysteria, Hypochondriasis, Dipsomania, and the Opium Habit.—Moral Depravity.—Double Consciousness.—Permanence of Cures.—Hypnotism distinct from Magnetism.—Possible Abuse of Hypnotism not a Bar to its Use in Medical Treatment.—Restrictions and Precautions necessary.

We are now in a position to speak of suggestion as a mode of treatment and cure, and we will first consider to what class of diseases it has hitherto proved applicable. And here I may say that, although Dr. Liébeault rarely gives medicines, but obtains most of his remarkable results by the suggestive treatment pure and simple, his followers by no means dispense with those remedies which the researches of generations of able men have put within their reach. In suitable cases they make use of dietetics, drugs, electricity and massage, and the combination of those means with suggestion often gives better results than any one method of treatment.

The suggestive method is especially applicable to chronic complaints. Rheumatic and gouty pains often yield to it, as do also many diseases of mal-nutrition, such as anæmia and 'general debility.' In derangement of the functions in women it acts very beneficially, both in checking excessive loss and in promoting a proper flow; also in relieving or curing periodic sufferings of all kinds. In chronic constipation and diarrhœa it has excellent effects, and patients usually find that the intestinal functions become regular through its use. Indeed, therapeutic suggestion gives a healthy tone to the organic system

generally, and tends to regulate all its functions. A consideration of the experiments of Bernheim, Delbœuf, and others will render this statement more comprehensible than it may appear on the surface.

Suggestion is extremely useful in cramp from the overuse of certain muscles, such as is commonly found among writers and telegraph clerks. It is very successful also in some cases of old-standing paralysis, and especially so in the infantile variety. Many practitioners speak highly of its curative power in nervous affections of the eyes, *e g*, hysterical amaurosis, and it is found beneficial in a few forms of deafness. In fact, wherever we find chronic disease resisting the usual methods of treatment, suggestion may be thought of as a useful ally.

Perhaps some readers will consider the scope here given to suggestion too wide, but I am convinced that its intelligent use by the medical attendant will be found beneficial in many cases where drugs do not act satisfactorily, or to reinforce the action of drugs For instance, it may be desirable to give ipecacuanha, but the retching following its administration may render its use impossible at an important time; or a mild cathartic may induce colic, often half imaginary; in such cases hypnotic suggestion may be useful to calm over-sensitiveness. In how many diseases, such as typhoid and rheumatic fevers, are the attendant weariness and restlessness among the most distressing symptoms! These may often be relieved by this treatment, which is here advocated, not as a speciality, but as an auxiliary in practice to every medical man. Professor Bernheim uses it practically for every case in his wards, and finds it of immense value in calming nervous excitability, improving general nutrition, and producing refreshing sleep. Dr. Myers relates how Bernheim hypnotized a patient who was brought into his wards suffering from pneumonia accompanied with delirium and sleeplessness. The man slept quietly for two hours and awoke refreshed, fairly comfortable, and free from delirium. The physical signs of consolidation

were the same after as they were before the sleep, but the attendant suffering was very greatly modified. The sick, and those reduced in strength, are exceptionally good subjects for hypnotic suggestion, and therefore offer a particularly favourable field for its employment. In many chronic cases it seems to give the patient a fresh start, and puts the system in a condition favourable to the action of other remedies —such as massage. I am certain that it will, in many instances, be found a valuable adjunct to the Weir Mitchell method, and will supply the mental and moral element which is sometimes required in this treatment. Some patients are irritated rather than soothed by massage, and for these hypnotism will act as a preparatory step. Several well known physicians, speaking to me on the subject of hypnotic suggestion, have told me that they find *suggestion* sufficient in their practice, without *hypnotism*, and have given several instances in which pseudo-paralysis and hysterical troubles generally have yielded to their well-timed assurances.*

* Professor George Buchanan, of Glasgow (*Lancet*, June 20, 1885), records two cases treated by him by simple suggestion without hypnotism. The first patient, a lady who had been bedridden and unable to move for months, was supposed to be suffering from spinal disease Dr. Buchanan had but just returned from a visit to Lourdes, where he had been much struck by the 'miraculous' cures of nervous complaints closely simulating organic disease. He formed the opinion that this was a case of hysterical pain and paralysis, and he assumed a confident manner, and told the patient to turn on her other side She did so, and he gradually got her out of bed, and before he left the house she was able to walk about the room, and was free from pain.

The cure (Dr. Buchanan adds) appears permanent, for she was quite well eight years afterwards. The other case he cites is one of 'hysterical knee,' which had been diagnosed and treated as disease of the joint. After a little manipulation he told the patient that she could walk, and she was at once able to do so, though the slightest movement previously had caused intense pain These cases are very similar to many reported by Bernheim and others as having been cured by hypnotism, and they are, as Dr. Buchanan says, among the most intractable complaints which medical men are called upon to treat, the disorder being in the imagination and not in the part which appears affected.

The beneficial and curative action of suggestion is not confined to bodily ailments. We are all acquainted with numerous examples of cases where a 'word in season,' *i.e.*, a suggestion falling on a receptive soil, has so influenced moral conduct that it has changed the entire life of the individual.

But I maintain that if simple suggestion can work thus beneficially, its effects must be greatly increased by hypnotism, and that with this aid it will sometimes produce results which it would be impossible for it to achieve alone, even in the most able hands. It is, as I have said elsewhere, through unwonted concentration of the imaginative powers upon a given point that suggestion works, and for most persons intense concentration is difficult—indeed, almost impossible to attain to in their normal state. Sir James Crichton Browne, in his eloquent address before the British Association at Leeds, in 1889, laid particular emphasis on the important rôle played by the imagination both in health and disease, and begged his audience to employ this power and direct it into proper curative channels.

Dr. Liébeault strongly recommends the treatment for sprains and muscular strains. In such cases it may be combined with gentle massage of the injured part. In the acute stages it may relieve pain and quicken the natural processes of repair, and in chronic cases it seems to aid in absorption of any exudation or deposit which may have formed. The rapid relief of pain and restoration of movement in some of these cases must be seen to be believed.

In cases of 'railway spine,' and of disorders resulting from shock and concussion generally, it affords hope of relief and cure; and in such cases the patient should be allowed to remain in the hypnotic state for a considerable time, as the rest to the nervous system and freedom from pain and irritation are, no doubt, important factors in the cure. There is no question of the value of suggestion in the treatment of such nervous conditions as insomnia and hysteria, and of such diseases as require above all things mental calming and repose. It is often impossible

---

The eloquence of Father Mathew and Gough, the temperance advocates, produced many as wonderful conversions of drunkards as hypnotic suggestions can ever claim, and though a proportion of these were but temporary, others were both sudden and permanent The history of all religious revivals abounds with instances of sinners being reached by suggestion under special circumstances of preparedness, who would never have been touched by ordinary preaching.

in many cases of chronic disease to say how much of the suffering depends upon organic disease, and how much on reflex disturbance and functional derangement. This is well seen in diseases of the heart, where often the distress of the patient is quite out of proportion to the amount of lesion In such cases the neurotic symptoms may often be relieved by hypnotic suggestion.*

The use of hypnotism as a means of diagnosis should not be overlooked. Dr. Hamilton Osgood (*loc. cit.*), was enabled by its employment to discover the functional character of a paralysis which had been previously looked upon as of organic nature.

Its power over the organic processes has been clearly shown by many experiments, made either on students of the system or on patients, with their own previous consent. A patient in the hypnotic sleep is told that he has burnt his hand or some other part of his body; he not only feels heat and pain in the place indicated, but it frequently happens that the spot becomes red and inflamed, and exhibits all the objective signs of congestion, and even of inflammation, vesication, etc. The suggestion of the operator has, through the patient's imagination, been able to affect the vaso-motor functions of the sympathetic nervous system. This experiment and others of a like nature open up a wide field of pathological interest; for if suggestion can cause an increased flow of blood to a part, and local congestion and inflammation, can it not also dissipate and cure these conditions when they occur in disease? Clinical experience answers in the affirmative.

Professor Delbœuf, of Liége, desiring to ascertain the positive effect of hypnotic suggestion in the treatment of a burn, and being of course unable to find two persons of identical constitution and condition generally, used the ingenious device of producing, with caustic, two exactly

* On this point I would especially refer the reader to Dr. Bazzard's Presidential Address to the Neurological Society, 1891 (republished in book form). He clearly shows how fine are the differences between 'functional' and organic diseases of the nervous system.

similar burns on the same person—one on each arm—and of treating one wound by curative suggestion, combined with the usual remedies, and the other with the usual remedies only. Having induced hypnotic sleep, he suggested to the patient that the one arm should be cured painlessly and without any suppuration; and it did in fact heal, by simple separation of the slough and healthy granulation, ten days earlier than the other, which went through the suppurative process, accompanied by inflammation and pain (*op. cit.*, p. 9). Were this case not reported by a well-known *savant*, I confess I should feel some hesitation in recording it here; as it is, its accuracy is beyond doubt.

Professor Beaunis (*op. cit.*) notes a case in which, by suggestion, he regulated the pulse of a patient. Before sleep there were 96 pulsations in a minute, which during the sleep increased to 98·4. He suggested a reduction, and it fell to 92·4. The pulse having again risen to 100·2, he suggested an acceleration, and it further rose to 115·5. The slackening and quickening of the pulse in each instance followed immediately upon the suggestion. The tracings were taken by Marcy's sphygmograph; and of these facsimile reproductions are given in Beaunis's work. He also succeeded in slightly raising the temperature of patients by suggesting an increase of warmth.

I have myself frequently succeeded in modifying the heart's action by hypnotic suggestion to a notable extent by as many as 10 beats in either direction in the minute, but the subjects on whom vesication can be produced by suggestion, are, I imagine, very few, and in them probably only after prolonged experimentation. I have on one occasion produced vomiting by suggestion. The patient, a dipsomaniac, who had relapsed and indulged in beer, required, I felt, very drastic treatment. He was a somnambulist, and in the trance state I told him that if he ever drank beer again it would act as an immediate emetic. I then awoke him and insisted on his drinking half a glass of ale. He had hardly swallowed it before

it returned, though he was quite unconscious of the suggestion.*

Beaunis describes at some length the production of all the effects of a blister following the suggestion that one had been applied. 'M. Focachon, a chemist of Charmes, showed us (Drs. Bernheim, Beaunis, and Liébeault) this phenomenon on a patient whom he brought to Nancy. During her sleep, at about 11 a.m., eight postage stamps were applied to her left shoulder, while it was suggested to her that they were a blister. She was allowed to sleep all day, being, however, aroused for meals, and was kept under observation. When she retired for the night she was told to sleep until 7 the next morning. At 8.15 a.m. the dressing which had been put on was removed, and the stamps were found *in situ*. The surrounding skin, for four or five centimètres, was thickened, modified, and of a yellowish-white colour. The cuticle, however, was not raised, and did not form a blister; but it was thickened and wrinkled, and presented the appearance usual before complete vesication. This part of the skin was surrounded by a zone of intense redness and swelling † M. Focachon and the patient returned to Charmes, and by 4 p.m. four or five vesicles were developed. Fifteen days later the blister was still suppurating freely. M. Focachon made a similar experiment on another patient, and in forty-eight hours produced a blister, which followed the same course.' The converse experiment has also proved success-

* I have recently received letters from this gentleman's friends, and what they say affords remarkable evidence of the deep seated effect of hypnotic suggestion. A short time since he was taken suddenly ill at a cricket match with what turned out to be acute pleurisy. As he was faint and in pain, he was given the usual rough-and-ready remedy—a glass of spirits. No sooner had he swallowed it than it returned. It was three months since I had last hypnotized him, but Dr. S. had repeated my suggestions.

† Dr. Richardson, in his kindly notice of my book in the *Asclepiad*, June, 1890, attributes the blisters produced in this case not to suggestion, but to the fact that the gum on the postage stamps was of bad and irritating quality! Dr. Albert Bonjean (L'Hypnotisme ses Rapports, avec le Droit et la Thérapeutique, Paris, 1890) relates numerous experiments in which he was able to obtain stigmata and blisters by suggestion alone, without even touching the part affected.

ful. A blister is applied to a hypnotized subject who is told that it is a soothing liniment and no vesication is produced (Alfred Fouillée, *Rev. des Deux Mondes*, May, 1891)

Professors Bourru and Burot, of Rochefort, succeeded in causing hæmorrhage from the nose, by suggesting that it should take place, in a young soldier of epileptic and hysterical constitution; they even fixed the hour when it should come on. On this same subject Dr. Mabille, of the lunatic asylum at Lafond, produced instantaneously, by suggestion, hæmorrhage from different parts of the body, exactly similar in character to the *stigmata* of some mediæval saints.*

Professor Krafft Ebing, in his remarkable monograph on the case of Ilma Szandor, a young Hungarian girl of extremely hysterical type, gives an account of many experiments he performed on her. He was able by simple suggestion to produce blisters and hæmorrhages and to effect marked alteration in temperature and in the character of the pulse and respiration.†

The temperature experiments of Krafft Ebing with Ilma Szandor seem to have been confined to causing decrease of temperature—no doubt as affording the most striking evidence of the power of suggestion. At a meeting of the Medical Union of Vienna in December, 1887, he hypnotized her by friction of the forehead, and suggested that her temperature should fall to 35·5°C. Immediately before the operation the temperature was 37°C., and immediately after it (at 8 p.m.) it was 37·1°. At 9·30 p.m. it was 36°. Next morning at 8 a.m. it registered 35·9°, and at noon it was 35·7°. It remained at this subnormal height until her next hystero-epileptic attack. The experiment was repeated on several occasions, and the fact was demon-

* The best modern example of a religious *stigmatisée* is that of the Belgian nun, Louise Lateau. The case was very fully investigated in 1869 by Dr. Lefébvre, Professor at Louvain University, and other physicians, who came to the conclusion that the phenomenon was a genuine result of auto suggestion. (Bonjean, *op. cit.*, p. 106.)

† *Op. cit.*

strated that not only could the temperature be lowered by hypnotic suggestion, but that its height at a fixed hour could be arranged by suggestion. Truly an extraordinary phenomenon. Professor Preyer, commenting on it in his admirable work, says 'he can see no way to account for the extraordinary changes of temperature except by admitting that intense ideo-conception processes in the cortex can under certain conditions act upon certain heat centres. He is disposed to doubt the continuance of the action, and supposes that the application of the thermometer revived the suggestion each time it was used, and that the effect being produced and the instrument withdrawn, the temperature would rise to its normal level, and would continue at it until a repetition of the operation led to a repetition of the suggestion and its realization' (*op. cit.*, p. 73). It must be remembered that Ilma Szandor was altogether an exceptional subject, and that Beaunis experimented over a considerable period of time without being able in any case to obtain more than a fractional rise. The fact, however, that an agent only produces its most extreme effects in persons of rare idiosyncrasy does not take from the importance of its action, and enables us to understand the slighter effects produced on ordinary mortals.

In Binet and Féré's 'Animal Magnetism' (Kegan Paul, Trench and Co., London, 1887), the above and several other similar experiments are related; for instance, how Dumontpallier succeeded in raising the local temperature several degrees, and how Bourru and Burot wrote his name with the blunt end of a probe on both arms of a hysterical male patient, suggesting to him, 'This afternoon, at four o'clock, you will go to sleep, and blood will then exude from your arms in the lines which have been traced.' The patient fell asleep at the appointed hour, and the letters appeared on his left arm, marked in relief, and of a bright red colour, with here and there minute drops of blood. But no such sign appeared on the right arm, which was paralyzed.

Charcot (the writers go on to say) and his pupils at the

Salpêtrière have often, by means of suggestion, produced the effects of burns upon the skin of hypnotized patients (pp. 198, 199). Féré adds that he has demonstrated that any part of the body of a hysterical patient may be made to change in volume by simple directed attention —thus showing what influence may be exerted by a simple phenomenon of ideation on the vaso-motor centres.

Binet and Féré cannot be accused of undue credulity. They refuse to accept as proof any phenomenon which has not been subjected to the most searching scientific tests; and they are so imbued with the theories of Professor Charcot, that they fail to see the therapeutic applicability of hypnotic suggestion, except in hysterical cases.

I have made a few experiments to test the length of time during which a suggestion of sensory illusion continues to act, and I have generally found that a night's sleep puts an end to it. But this is not always the case, and Mrs. S has on several occasions remained under the suggested delusion for several days. For instance, I once hypnotized her and told her that her favourite cat, a tabby, had a black tail, and that it would continue so for three days. On awaking she no sooner saw the animal than she described the change which she noticed had come over it, and she expressed a fear that it was ill: when at the end of three days it assumed its natural colour to her eyes, she expressed her relief at seeing it recovered. A gentleman to whom I have sometimes suggested visual hallucinations, sticks to the assertion that a colour is what I have told him, but he does so in a somewhat shamefaced manner, as one conscious that there is something not right about it. So one gets all grades of effect from complete sensory hallucination to merely increased credulity.

The effects of suggestion are not necessarily temporary and immediate, but may be caused to appear hours, days, and, in some cases, months after the suggestion has been given. Bernheim cites several instances of this prolonged or deferred action, applied to the physical or psychical

side. Under the physical heading I should place the production of such an objective symptom as a blister or ecchymosis; and under the psychical, a sensory impression, such as the appearance of an hallucination at a given hour, or the performance of a suggested action after a certain interval. For instance, a soldier, a patient of Dr. Liébeault, while in a state of hypnotic somnambulism, was told that on a certain day in two months' time, at 10 o'clock a.m., he would come to Dr. Liébeault's consulting-room, and would there see the President of the Republic, to whom he would make a profound obeisance. The President would then advance towards him, would address him in complimentary language, and confer upon him a decoration, which he himself would fasten to the recipient's buttonhole. On the day appointed a considerable audience, consisting both of doctors and patients, was assembled in the consulting-room, and at 10 o'clock precisely the soldier appeared. As he entered his expression changed, he regarded the bookcase, and bowed low in its direction. He then advanced, bowed to Dr. Liébeault, and stood at attention, with a gratified smile on his face, and looking downward at his buttonhole. In a few moments he made another profound obeisance, muttered some words and walked away, much to the astonishment of those present who were ignorant of the meaning of this pantomime.*

Dr. Beaunis tells a similar story of a young woman whom, while she was in a profound hypnotic state, he assured that on the following New Year's Day she would see him enter her room, and would hear him say, '*Bon jour, mademoiselle.*' This suggestion was made in July, and on the following 1st of January the young woman wrote to the doctor, saying that she could not understand how it was that he had entered her room that morning, had greeted her, and then walked out immediately. She remarked further that he was dressed in the same clothes she had seen him wear in the month of July. At that time

* Quoted by Binet and Féré, *op. cit.*, p. 245.

Dr. Liébeault happened to be in Paris, while the young woman was at Nancy.

Deferred suggestions, like nearly all suggestions given in the advanced stage of hypnotism, are almost invariably followed by amnesia. The subject, when awakened, has no recollection whatever of the order received by him, nor will it recur to his consciousness until the moment for performance has arrived. If he is then questioned as to his motives for such an action, he will probably reply that he did it upon an unaccountable impulse which he could not withstand. In very rare cases indeed, there exists for some time beforehand an impression that at a certain hour a specified act must be done, or a specified word spoken. Occasionally, too, the hypnotic subject may recognise the impulse as having been dictated to him by a past suggestion; but generally, as I have said, it will be regarded as quite spontaneous, and not to be accounted for.

Moll, in discussing this point, aptly compares the mental state of a subject to whom the execution of a past hypnotic suggestion at a certain time has been commanded to that of a person who has been given a letter to post, and who puts it in his pocket and forgets it until he is reminded of his duty by passing a post-office. He then automatically posts the letter, but very likely entirely forgets the action and may be unable to recall it.

This illustrates the fact, which cannot be too cogently impressed on the reader, that hypnotism does not induce a new condition, nor work on perfectly novel lines to the extent which is often supposed, but that its effects have analogies in nearly all the waking conditions of life, and that it acts by intensifying and utilising mental states which are abnormal in degree, but not unnatural in kind.

Such phenomena throw a strong light on many stories of supernatural apparitions, and show how useful hypnotism may prove in the hands of competent observers as a key to psychical problems. Here we find an idea impressed on the 'unconscious mind,' and lying dormant

for months, brought into action by the simple efflux of time, as certainly as a piece of clockwork can be set to run down at a fixed hour. I need hardly add that such experiments as the foregoing are successful only in a very small proportion of cases, and probably only in 'educated' subjects.

Fulfilment of a suggestion, the prompting of which has either not been consciously heard, or has been instantly forgotten, is not without its analogy in ordinary life. We must all acknowledge that we occasionally think, speak, and act in what seems a motiveless manner, and yet, by careful introspection or tracing back, we shall probably find that our thought, word or action has its source in some forgotten or apparently unnoticed incident, which has left its impression upon our brain-cells. The brain-cells, once stimulated, may under certain conditions, as in delirium, prompt the utterance of sounds apparently forgotten or unrecorded. Thus, we find persons on their death-bed, or in fever, speaking a language which they had forgotten since childhood; like an elderly Scotch physician, a friend of mine, who for an hour before his death talked only in Gaelic, the language of his childhood, which he had not spoken for fifty years.* There is a well-

* Some persons are, as Bernheim points out, 'suggestible' to an extraordinary degree, independently of hypnotism. This, he finds, is especially marked in children and in persons affected with phthisis. He relates how he has frequently suggested imaginary actions and even crimes to such subjects, with the result that the ideas have been accepted as true, and have become as actual truths to them. This increase in the normal suggestibility may perhaps serve to explain the extraordinary stories invented by some children. Such untruthfulness may not depend upon viciousness, but on excessive imagination, which has been set in action by some outside suggestion. Professor Déjerine speaking of suggestibility without hypnosis cites the case of two young countrymen under his treatment in the hospital. They were both fresh from military service when he first saw them, and neither of them had ever been hypnotized; yet he was at once able by simple suggestion to evoke in them sensory hallucinations, changes of personality, and all the other psychical phenomena which one is accustomed to associate with the most advanced stages of hypnotism. *Rev. de l'Hyp.*, Jan., 1891.

Anæsthesia by suggestion may be sometimes induced quite independently of hypnotism. For instance, Dr. Robinson, of the Mile End Infirmary, found that he could induce complete anæsthesia and analgesia in a hystero-epileptic girl, who had never been hypnotized, by telling

known story of a servant-girl, who, in the delirium of fever, continually repeated passages from the Greek Testament, which her ears had unconsciously taken in years before, when she had been in the service of a clergyman. And all persons entrusted with the care of lunatics must know what unseemly and even vile expressions may, in the paroxysms of insanity, be uttered by young, refined and virtuous women, whose lives have been carefully guarded from evil influences. The vicious word or phrase heard by them long ago, perhaps in early childhood, while passing along a street, or standing at a window, though uncomprehended at the time, and apparently unremembered, was, nevertheless, recorded in the brain-cells.*

It will thus be seen that suggestion is an exceedingly powerful agent—effective in the hands of the experimentalist, and efficacious also in those of the physician. When we consider that the knowledge of this treatment has only become general within the last four or five years, we must acknowledge that its progress, and the number of diseases which it affects, are both remarkable. But we must also acknowledge that it is no universal remedy, warranted to act like magic on all diseases. In some cases it is powerless, or comparatively so. It cannot restore a joint altered by chronic rheumatism or gout, nor put right an internal displacement, nor can it remove cancer or other malignant disease; neither will it cure paralysis agitans, glaucoma, advanced Bright's disease, nor diabetes. It cannot materially benefit cases of phthisis or organic heart disease, though it may do much to relieve the sufferings incidental to all painful affections.

---

her she was to feel nothing. The girl had confidence in the physician, and his suggestion was in some way able to produce a condition resembling hysterical anæsthesia, probably by inhibition of the sensory centres.

* Dr. Felkin, in his very excellent *resumé* of the progress of hypnotism, gives an interesting experience of his own with a hypnotized subject. She was a woman of fifty, who could not in her waking state speak English, yet when hypnotized she began to talk fluently in English. It appears that she had known the language as a girl, but had entirely forgotten it, and that hypnotism brought back the girlish memory.—*Op. cit.*, p. 50.

It has been but little employed in acute illness. I believe that most of the Continental practitioners of the system use it chiefly at consultations in their own rooms, where, of course, sufferers from acute diseases are not likely to present themselves. It has occasionally been used in childbirth, with beneficial results; but in surgery it is not often employed. No doubt a few susceptible persons might be painlessly operated upon while under its influence: but as a rule, the natural agitation of a patient before an operation would so distract his attention as to render hypnotism impossible; whereas chloroform and other anæsthetics are easily administered, and are commonly certain in their effect. Professor Bernheim, however, uses suggestion in conjunction with chloroform, and finds that his patients take the anæsthetic better, and require a much smaller quantity, than when it is administered silently in the usual way. This is the experience of many chloroformists.

Suggestion may be usefully employed instead of narcotics in temporarily relieving acute pain, by inducing sleep which will not be followed by the deleterious consequences of such drugs. It is also used in cases where the sleep itself is remedial, as in threatening congestion of the brain, delirium tremens, and in insomnia, when this exists as an independent condition and not as a symptom of disease.

But it is in the so-called 'neuroses' that suggestion obtains its most brilliant successes—in functional epilepsy, St. Vitus's dance, asthma, palpitation, nervous headache, spinal irritation, neurasthenia, ovarian pain, and the many forms of dyspepsia. Nervous disease is, unfortunately, ever on the increase; and the study of its symptoms, its cure and prevention, must increase to keep pace with it. As civilization advances, humanity develops 'nerves,' which, in this sense, may be said to have no existence in the savage and barbarous states. The vices and virtues of civilization tend alike to increase our sensitiveness. Drink, narcotics, the abuse of tobacco, social excitements,

intellectual culture, the ever-spreading desire to be or do something remarkable—these and many other stimulating influences are perpetually at work to promote nerve-disease among us. In large cities especially, where men live under artificial conditions and at high pressure, we find in all classes of the community affections presenting subjective symptoms quite out of proportion to the objective signs. It would be interesting to ascertain what proportion neurotic affections bear to organic diseases in a city doctor's day's work. Probably one half at least. Many of us when fresh from the hospital are vexed and surprised to find how much of our practice is made up of such cases. They are really among the most painful and difficult complaints a physician is called upon to treat, for they generally indicate a weak and depressed state of vitality, in which the slightest suffering is felt with intensified force. Take the medical nomenclature ending in *algia:* cardialgia, cephalalgia, gastralgia, myalgia, neuralgia—what visions of suffering do these words call up!

Hysteria, and many other neuroses, are popularly supposed to be essentially the diseases of the rich and idle, but Dr. Savill has shown that a considerable proportion of the cases in workhouse infirmaries are of this nature. This is what the physiologist would expect. Probably nothing is so fruitful a predisposing cause of neurotic ailments as intemperance in the parents, and the children of slum dwellers are sent into the world with such unstable nervous systems that those who manage to survive infancy are the special prey of all varieties of neuroses and become the permanent tenants of workhouses and infirmaries. I have not been much impressed by the results of hypnotic treatment in a large proportion of these cases, and I have attributed its failure to the fact that there is a total absence of material to work upon. There is no reserve of nerve energy, as Dr. MacFarlane says of some cases of neurasthenia.

There is one class of cases for which hypnotic treat-

ment offers particularly good prospects of relief. The exhausted brain-worker, whose nervous system is in a painful state of erethism, will here find exactly the remedy which is physiologically indicated. He is suffering from functional derangement of the highest centres, and the action of hypnotism on those is their reduction to a condition of physiological rest. The over-wrought and over-anxious victim of modern economical and social conditions can be soothed and refreshed, by hypnotic suggestion, to an extent quite unattainable through drugs or physical treatment of any kind. But hypnotization of these subjects is a process requiring much tact and patience—for the condition of the brain is such as to render the necessary mental quiet and confidence difficult of attainment. Perseverance will, however, generally be rewarded by success, and success here often means new life to the sufferer.

Though such affections often depend upon organic disease, they more frequently have their source in nerve irritability and functional weakness. How they perplex the able practitioner, who feels quite at home with a case of scarlet-fever or inflammation of the lungs! Nervous diseases generally—hysteria and hypochondriasis in their many forms—are spoken of contemptuously by some pathologists, who are impatient of subjective symptoms which have no apparent objective reason for existence. It is natural to ascribe to imagination an ailment for which neither friend nor physician can find any comprehensible cause; yet these so-called fanciful ailments may be as real as typhus, and entail a thousand times more suffering on the patient. Bodily weakness, unaccountable pains, depression of spirits, a weight of misery accompanied by the conviction that no power on earth can lift it, a sense of being neglected by friends, or of being to them a weariness and trouble—all these sufferings of mind and body are real enough and hard to bear, whatever their original cause may have been.

There is no doubt that they are sometimes brought

about by the patient's own fault. They may spring in the first instance from indulgence in bad habits, from idleness, from a tendency to foster and dwell upon morbid ideas; in short, they frequently are diseases *caused by the imagination*, which is quite a distinct thing from *imaginary diseases*. Indeed, there *is* no imaginary disease; he who persistently imagines a disease in himself *has* one, though possibly not the one he imagines. For the imagination which can furnish its owner with a bodily disease is itself not in a state of health. Who with healthy, well-balanced mental powers could or would bring upon himself a sickness by auto-suggestion? 'No one can be a hypochondriac at pleasure,' aptly says Lavègne.

'When one of these hypochondriacs,' write Binet and Féré, 'whom we are apt to call *malades imaginaires*, comes to seek the help of medicine, complaining of subjective pains and uneasiness, what do we often reply? "It is nothing; it is merely fancy; try not to think about it;" and he is sent away with some anodyne or simple remedy. This invalid, who has suggested to himself his disease, and who really suffers from it, becomes convinced that it is not understood, and that nothing can be done for him. The more he trusts his physician, the deeper is this conviction, and he who came with merely a trifling complaint may go away with one which is practically incurable'

The disease induced by morbid auto-suggestion may be controlled and cured by healthy suggestion from without, given when the brain is in a state peculiarly receptive of outer influence The mind of a nervous, hysterical, hypochondriacal person is usually shut against all outward influence, except such as corresponds with and feeds its morbid state. The patient when awake rejects cheerful and hopeful suggestions almost as if they were insults, but in the hypnotic sleep, his morbid self-influence being temporarily in abeyance, his mind will admit and act upon suggestions of bodily and consequent mental cure.

The suggestive system has been extensively taken up

by foreign lunacy and mental physicians. Among these are Drs. Semal, of the Asylum at Mons; Mabille, chief physician of the Asylum at Lafond; Burckhardt, of the Asylum at Préfargier (Switzerland); these specialists and others frequently report cases of amelioration and cure, through the use of suggestion, in the *Revue de l'Hypnotisme.*

The insane are not easily influenced by hypnotism; all who have anything to do with them know how difficult it is to get them to fix their attention on anything except their delusion, but once an influence is gained over them, suggestion may prove most useful.

That border-land of insanity occupied by dipsomania, the opium habit, and the excessive abuse of tobacco and other narcotics, offers an extensive field of usefulness to suggestive treatment. Professor Forel, of Zurich, in his address at the Congress of Neurologists, held at Zurich in 1888, gave it as his opinion that in those cases suggestion is a very beneficial, and often a very powerful, agent, frequently enabling the drunkard to take that first step, which is always so difficult, towards reformation and cure. He cited also several cases in which he had succeeded by its means in curing patients of the opium habit in from eight to twelve days, and that without the acute mental suffering which is commonly felt when an enslaving habit is quickly broken off. Drs. Van Renterghem and Van Eeden (of Amsterdam) likewise tell me that they have had great success in overcoming these moral diseases. At Nancy I had the opportunity of seeing many such cases in process of cure. One man came to Dr. Liébeault completely shattered by indulgence in tobacco, which he both smoked and chewed. He was a railway porter, a big strongly-built fellow, but he was weak and shaky through his excesses. His digestion was faulty, his tongue thickly furred, and he had no appetite. His pulse was slow and intermittent; he felt giddiness on movement, and his sight frequently vanished through incipient amaurosis. Persons whose nervous systems are broken down in this

way are very easily hypnotized, and Dr. Liébeault soon had this man in a state of profound sleep. He then told him that he was to give up smoking, that a pipe was to be to him an object of loathing, and a quid of tobacco even more offensive. Also, that if he did indulge in one or the other, pain and sickness would be the result, so that he must not even feel a desire for the indulgence. The patient came daily for several mornings, and daily showed an increasing improvement, till in a week he was completely cured of the symptoms of nicotine poisoning. He would, of course, have been cured by voluntary abstention from tobacco, but I doubt if the beneficial effect would have been so rapid—and no one seeing the man would have credited him with the moral courage and determination necessary for breaking off a long-cherished habit. It is told of the younger Dumas that he was formerly an inveterate smoker, and on one occasion, feeling out of health, went to consult his doctor with the usual cigar in his mouth. The physician, one in whom Dumas had entire confidence, having heard his symptoms, told him plainly that smoking was destruction for him, whereupon the great writer immediately flung away his cigar, declaring that he would never smoke another—and he has kept his word. But how many are gifted with such resolution ?*

There are many cases on record where this exhibition of physical origin has been manifested without hypnotism. A man who has caused the death of one dear to him in some drunken brawl is very likely, if he has any good in

* A near relation of my own has recently been undergoing hypnotic treatment at Nancy, for the cure of the tobacco habit, and his experience is interesting After being a great smoker for years he formed the resolution of giving up the weed, as he found that it was causing nervousness and palpitation. Dr. Liébeault never induced in him more than a slight drowsiness, with inability to open the eyes, and yet the effect of suggestion was immediate and remarkable. Tobacco almost at once became distasteful to him, and he has never felt the least inclination to resume the habit. Probably in this case the patient would have been able to reform himself unaided . but Dr. Liébeault saved him from a good deal of suffering, and very likely from some relapses.

him, to conceive a horror and dislike for intoxicants and to become a reformed character.

In many cases the good is thus so overshadowed and hidden by the evil that its presence is overlooked. Hypnotism, at any rate, enables us, under favourable conditions, to suppress the evil and thus give the good a chance of showing itself, and it is possible that it may even enable us to create good qualities in course of time.

In the *Revue de l'Hypnotisme*, 1886-1887, some papers appear by Dr. Voisin, of the Salpêtrière, showing the efficacy of suggestion in the treatment of moral obliquity; and at the Congress of the French Association for the Advancement of Science, held at Nancy in 1886, papers dealing with this subject were read by several physicians of eminence. Dr. Voisin gives instances of female prisoners, formerly considered incorrigible, who, after a course of suggestive treatment (combined with the religious and moral instruction, which, alone, had unfortunately proved ineffectual), became modest, cleanly, and industrious. Some of these reformed women have been placed in situations of trust, which they hold satisfactorily.

Many such cures are thoroughly authenticated, and the number of recorded cases is being rapidly augmented. In a most interesting article by Mr. F. W. H. Myers,* Dr. E. Dufour, the chief physician of the Saint-Robert Asylum (Isere), is quoted as follows: 'From this time our opinion is settled, and we have no fear of being deceived when we affirm that hypnotism can render service in the treatment of mental disease.' 'In common with most inquirers, Dr. Dufour finds only a small proportion of lunatics hypnotizable,' says Mr. Myers, 'but the effect produced on these is uniformly good. His best subject is a depraved young man, who, after many convictions for crimes, including attempted murder, became insane.' Dr. Dufour assures us that this difficult subject has become a reformed character through the influence of hypnotism.

Professor Forel, Medical Superintendent of the

* 'Multiplex Personality:' Proceedings of the Society of Psychical Research, vol. iv., 1886-7.

Cantonal Asylum at Zurich,* gives a case of reformation in a confirmed drunkard, seventy years of age, who, after twice attempting suicide, was placed under his care. He spent nine years in the asylum, during which he gave an infinite amount of trouble, drinking himself into a state of insanity whenever an opportunity offered, and inciting the other patients to rebellion.

In 1887, Forel hypnotized this apparently incorrigible subject, and treated him by suggestion. He proved susceptible, and after a few sittings became an utterly changed character. He proved his reformation by voluntarily giving up the small quantity of wine which had been allowed him, and joining the Temperance Society, which hitherto he had vilified and opposed. It was now safe to allow him full liberty, as the formerly attractive wine-shops were no longer any temptation to him. Dr. Forel adds, that during the last nine months he has been occasionally hypnotized for purposes of demonstration; but requires no further anti-alcoholic suggestion.

It is interesting to consider in this connection how far it is possible to modify inherited or acquired habits by hypnotism.

It is certain that suggestion has a twenty-fold greater influence in the hypnotic man in the waking state, and it is probable that many criminal and weak persons might be reformed by its continued employment. They would be educated or re-educated.

But I believe that the environment must at the same time be suitable, and that had Dr. Forel's patient been able to mix with his evil associates after each hypnotization, the good would have been checked in the bud by the excess of evil.

It is supposed that hypnotic suggestion causes inhibition, of psychical origin, of nerve tracts, and it is possible that it enables new nervous arrangements and combinations to be formed by directing nerve energy into new or little-used channels.

* *Op. cit.*

Association of ideas plays a very important part in all our sentiments and actions, and this association is certainly strengthened by hypnotism. This explains the success of the treatment in many cases of drunkenness. A good plan in these cases is to suggest dislike for alcohol, and even vomiting at the taste of it. If the patient is then made to swallow a small quantity and sickness follows, and he is told, while in the hypnotic state, that such will be the invariable consequence of indulgence, we shall have established a train of very disagreeable associations which will for a long time and perhaps always be connected with the first step in alcoholic indulgence. It may be objected that the association of a drunkard's ideas with alcoholism cannot naturally be pleasant, as excess is always followed by illness. But ordinarily sickness and disgust come *after* excess, while hypnotism causes them to precede it. We frequently see the action of association of ideas where hypnotism is not in question at all. For instance, I know a lady to whom the taste of strawberry jam is most disagreeable and nauseating, because, as a child, on two or three occasions evil-tasting powders were given to her disguised in it.

The same lady tells me that the sight of a bottle from which she had been dosed with castor-oil used to arouse a feeling of nausea long after she had been emancipated from such compulsory medication. But similar instances are so common that they must occur to the mind of everyone.

Alcoholic intoxication is sometimes accompanied by distinct double personality, but this is rarely so well marked as in the case of a farmer referred to by Professor Ball. This man was a dipsomaniac, and frequently got drunk while attending the markets. In this state, however, he continued to transact business, and apparently with considerable judgment and ability. But, on becoming sober, he would be quite unconscious of what had taken place, and his business suffered severely in conse-

quence. He hit upon the idea of keeping a note-book for use during his drunken state, and he found that by doing so he was able to preserve a written record of his operations, which supplied the hiatus in his memory ('Maladies Mentales,' p. 79). Oblivion of actions committed in a state of drunkenness is, of course, common enough, and there are plenty of cases on record where men have been hanged for murders of which those unhappy criminals had preserved no recollection. By special stimulation of the brain cells, alcohol may arouse the phlegmatic and dull-minded man to temporary brilliancy, and so induce what appears to be a change of character; but this change is generally more apparent than real. Alcohol, as a rule, does not change character, but emphasizes its features, though it sometimes effects very complete changes in a man's conduct. The penurious may become lavish and the morose man may assume an air of jollity. Here probably the alcohol acts by removing those inhibitory processes which are the result of education, and so allowing the natural characteristics free play. Hypnotic suggestion does not enable us to create force, but only to transform it, nor to create characteristics, but merely to modify them. I cannot think that hypnotism would make a naturally morose man permanently amiable, or a violent-tempered man quiet and gentle. But if the natural temperament has been altered by circumstances, or has not been allowed to develop, I see no reason why hypnotism should not bring out what is latent and suppress the acquired traits, and this applies especially in the case of children.*

* The following extract from a letter recently received from an American lady is, I think, instructive in this connection. The writer, Dr. M. Goldson, of Oakland, California, came to London last year to attend the post-graduate lectures, and I gave her some instruction in hypnotism, which she is now turning to account in her practice: 'I have recently hypnotised a lady, Mrs. R., who has been lately married. Her happiness was greatly marred by the conduct of her husband, who took the greatest delight in teasing her; the more she showed her annoyance, the worse he became. She took this so much to heart that she became profoundly depressed, and was continually in tears when alone. I hypnotized her, and suggested that she should

In such examples one would say that there are two separate entities dwelling within a single bodily form, and that one of these can be brought out and developed, while the other is so absolutely suppressed as to appear non-existent. To some extent this is indeed the case with everybody. The best of us can feel a suppressed evil self struggling at times to get the upper hand; the worst are dimly conscious of some crushed-down better self striving within them—however rarely and feebly. It is in a weakened or diseased brain condition that this psychological fact becomes startlingly manifest. Dr. W. Ireland* gives the case of a young man of good character, who, after an epileptic seizure, took possession of a carriage which he found in the street, drove to his father's grave a mile and a half away, gathered some flowers which grew there, and took them home to his mother. She was naturally alarmed at his conduct, and bade him take the carriage back to its owner; but instead of doing this he left it at a livery-stable in his own name. When he recovered his normal state of health it was found that he had no recollection whatever of this circumstance. On another occasion, again after an attack, he engaged himself as a sailor, but was soon found by his shipmates to be utterly ignorant of seamanship, and extremely strange and flighty in manner. In a short time he recovered his usual consciousness, and was amazed to find himself on board ship and far from land, for he had quite forgotten the series of events which had led him there. It would

---

no longer feel grieved or annoyed at his conduct, but should enter into his jokes with amusement, and should enjoy his merriment and be completely happy. The treatment was entirely successful, and after the fifth sitting Mrs. R. reported that a complete change had come over her life, and that her husband was astonished to find that she no longer resented his jokes at her expense, but seemed rather to enjoy them.' It seems to me quite likely that if Mrs. Godson had quietly talked to Mrs. R. and given her sensible advice, the desired result might have been obtained; but no doubt hypnotism, by increasing the patient's mental receptivity, greatly aided the action of suggestion.

* 'The Dual Function of the Double Brain.'

be interesting to see what view a judge would take of the legal responsibility incurred in such a case.

But far more remarkable are the cases of Louis V—— and Félida X . The former is well described by Mr. F. W. H. Myers* (*op. cit.*). Louis V—— was born in 1863; his mother was a woman of ill-character, and as a natural consequence, he fell early into evil ways. At the age of ten he was sent to a reformatory, where he showed himself docile and obedient. Four years later he was frightened by a viper, and this fright brought about a series of convulsions and hysterical attacks, which left him with hysterical paralysis of the lower limbs. He became worse, and in 1880 was sent to the asylum at Bonneval, suffering from periodical epileptiform fits, and from paraplegia. He was now a quiet, well-mannered boy of seventeen, and the change in him for the worse was as yet merely physical. He had, indeed, forgotten how to read and write, but this was probably to be accounted for by want of practice, for he distinctly remembered his life before entering the reformatory, and was deeply ashamed of it. He was employed at tailoring for two months; then he had a severe attack of hystero-epilepsy, after which he slept for several hours. He awoke from his sleep entirely free from paralysis, and got up, intending to work in the fields, as he had been used to do at the reformatory, where he now believed himself to be. He walked with comparative ease, though somewhat uncertainly, a consequence of muscular atrophy from disease of the limbs He recognised no one about him, and had entirely gone back to the time before his fright. His disposition was completely changed. From being quiet and tractable, he had become quite the reverse, and he was found out in a theft. In 1881 he escaped from Bonneval and after a few years, which he spent partly in drifting about from hospital to prison, partly as a private of marines, he was sent to the asylum of Rochefort, having been convicted

* Fully described in medical detail by Dr. A. T. Myers in *Journal of Mental Science*, 1886.

of a theft, but judged to be of unsound mind. Here he came under the care of Drs. Bourru and Burot, who carefully observed his case, as Dr. Camuset at Bonneval and Dr. Jules Voisin at Bicêtre had already done.

At Rochefort he developed hemiplegia of the right side, with consequent indistinctness and difficulty of speech, notwithstanding which, he was extremely impudent and abusive, and ready to expound his theories, which were all adverse to established authority. He could now remember only detached vicious periods of his past life. Contact with metals (metallo-therapy) was tried upon him : silver, lead, zinc, and copper had little or no effect, but when a bar of steel was laid upon his paralyzed arm the hemiplegia shifted from the right side to the left, which became insensible Such a physical change is not uncommon, but the coincident mental change was unexpected and startling. Louis V—— had become another creature. The insolent and unmanageable patient was now gentle, modest, and respectful. His speech was once more distinct, but he now declined to give any opinion on important matters, declaring himself unable to judge of them wisely. His experiences as a marine were absolutely forgotten, and he remembered only the more reputable epochs of his life.

These two contrary conditions, evil and good, were by his physicians called his first and second states, and from them several intermediate and varying states could be produced. His 'fifth state' was especially curious. By being placed in an electric bath, or having a magnet applied to his head, he could, for a time, be wholly cured of paralysis. He became light and active as a healthy child, and on questioning him it was found that he had indeed gone back to childhood. He was again at the reformatory, and all his life after his fright from the viper was an utter blank. But let him be in any way reminded of that circumstance, and he fell at once into an epileptiform condition, which left him in his 'first' or 'second' state.

Louis V—— is now no longer at Rochefort, and according to the last account of him, his health and psychical status are both much improved.

The physicians who have had charge of this extraordinary case agree in supposing that the various observed changes point to a dual action of the brain, and the unstable preponderance of one hemisphere. The imperfect speech, and violent, insolent conduct associated with the right hemiplegia, in contrast with the clear speech and self-controlled demeanour which accompanied the left hemiplegia, show the contrasting tendencies (in this case) of the supremacy of the right and left hemispheres respectively.

Such marked effects of brain duality seldom appear spontaneously, except among the insane, idiots, and sufferers from brain disease or delirium. Dr. Ireland gives a case of double personality, which he has witnessed in an idiot boy named Finlay. This lad would talk to himself, and argue as if two persons were discussing a question Sometimes he would thrash himself, saying, 'Finlay is a bad boy to-day,' and then would cry out with pain in his own personality. In some cases, where insanity follows upon injury or disease of one-half of the brain, the patient is conscious of the struggle for mastery which is being carried on within him. The organism which remains sound controls the insane impulses of that portion which is damaged, until at last it becomes tired out, and partakes of the common intellectual ruin.

A most remarkable case of double personality is that of Félida X —, which is fully described by Dr. Azam,* Professor in the University of Bordeaux. Félida was born in 1843, of respectable parents. From childhood she showed a melancholy and reserved disposition. She was subject to hemoptysis, and dwelt continually on her

* 'Hypnotisme, Double Conscience,' etc., Paris, 1887. One of the most interesting histories ever written, Professor Azam being a master of style as well as a scientific observer of the first rank.

bad health. At the age of fourteen and a half, her first transformation occurred. After a sudden pain in her head, she fell into a short trance, from which she awoke completely metamorphosed. She was now bright and lively, very loquacious, and even noisy. Her health seemed improved, and she did not complain of any ailment. But after a few hours she again fell into a trance, and awoke to find herself in her first or normal state. Henceforth she passed her life alternately in one or the other of those two conditions. For some time the 'second state' did not occupy more than a tenth part of her existence, but by 1875 the relative duration of the two states, which had been changing by degrees, had become reversed, so that she was nearly always in the second state. In this latter condition, her memory of the past is complete, but in her first state all that has occurred in her second is utterly forgotten. Hence have ensued some curious complications; for instance, while in her second state, she showed a very decided preference for a young man, whom in her first she completely ignored. On one occasion she was attending the funeral of a friend, and while returning home in the carriage she had an access of trance, which lasted only a few minutes, and aroused no remark. She awoke in her first state, without any recollection of why she was in the carriage, or whose funeral she had been following. By questioning, however, she managed to set herself right without betraying her change of personality. In due time Félida married and became the mother of several children, but the alternation of personality went on as before, and assuredly she could have no secrets from her husband, as in her second state she revealed everything she had done in her first, even though she had intended to keep it secret.

Both Louis V—— and Félida X—— proved excellent subjects for hypnotism; and in the case of the former hypnotism produced the same alternation of personality as did metallo-therapy. In this case it seems fair to

attribute to its use by Drs. Bourru and Burot some of the credit of his recovery and reformation.

In the cases of Louis V—— and Félida X—— hypnotism seemed to produce still another phase of personality, but Dr. Richard Hodgson describes a very interesting case of double personality in which hypnotism evoked the 'second state.' The subject was an itinerant preacher, named Ansel Bowne, sixty-one years of age, who one morning disappeared mysteriously from his home, and in spite of the efforts of his friends remained undiscovered for two months. He woke up one morning at Norristown, Pennsylvania, to find that he was keeping a small general shop under the name of A. J. Brown. He had been engaged in this occupation for six weeks, and had appeared to his neighbours as a perfectly normal individual. As a matter of fact he had been in a state of somnambulism all the time, and he knew nothing on awaking of what had befallen him since he had fallen into a trance whilst walking in the streets of the town where he had been living. Professor James and Mr. Hodgson hypnotised him, and in the hypnotic state he resumed the personality of A. J. Brown, and told his audience what he had been doing during his residence at Norristown and how he got there.*

I have called the first state of Félida X—— 'normal,' but should it be thus called merely because it happened to be the first? It is incomparably inferior to her second state, which has now almost entirely replaced it. In this second state, Félida is frank and cheerful in her manner, an active woman of business, and an excellent mother.† In her now rarely recurring first state—her *état bête*, as she herself calls it—she is reserved, gloomy, and selfish. Which of these two is her sane, her truly natural condition? which her abnormal? Such instances lead us to inquire, Can the good effects which in this woman

* Proceedings of the Society for Psychical Research, July, 1891.

† The changes are chiefly psychical. In both states she suffers from chronic asthma and general delicacy of health.

occurred spontaneously be brought about by outward means? The reassuring answer is that they can be, and have been, thus brought about, and in the future will be wrought more frequently and more completely. The newer hypnotism is still a young science, and before the physician and the moral reformer lies a vast field of psychical possibilities still to be explored.

Richet * describes how by hypnotic suggestion he changed an enthusiastic Bonapartist into an equally enthusiastic Republican, who furthermore recognised her conversion. 'Vive Gambetta!' cried this lady. 'A veil seems torn away! How mistaken I have been about him!' The effects of such an experiment as this are of course superficial and transitory, but such incidents point to possible induced moral changes, which may be rendered deep and permanent.

Richet (*op. cit.*, p. 250) and A. Pitres (*Revue de l'Hypnotisme*, December, 1890) suppose that personality depends upon memory of previous events and their relation to one's self, and that this condition is never affected in the lighter grades of hypnosis, and only with comparative rarity in the deeper states of somnambulism. According to Pitres we find alteration of personality taking place in three different ways, by alternation, alienation, and reversion. All these occur under certain circumstances in the waking state, and they may be induced in susceptible subjects by hypnotic suggestion. Thus Azam (*op. cit.*, p. 245) mentions the case of an insane patient who always told him of her own symptoms as if they belonged to a friend: 'I wish to consult you about a tumour which she has in her breast, and which causes her great pain,' etc., the person meant being herself. The way in which children speak of themselves in the third person is a matter of common observation. 'Freddy is a good boy, Freddy wants to go to bed,' etc. It is probable that as memory is extremely limited in young children, their individuality and personality is vague and

* 'L'Homme et l'Intelligence': Appendix.

undeveloped. In insanity it is common enough to meet patients who believe themselves to be other people, generally of historical or present celebrity or importance. In the advanced hypnotic state it is often possible to make the patient believe and act as if he were any person whose name is suggested to him, and he will endeavour to act the character exactly like one under insane delusion. It is this feature of hypnotism which is brought into such requisition by platform professors, and to the ignorant and careless it is a matter of merriment to see a stalwart countryman imagine himself a baby or a schoolgirl, or to see a young girl act the part of a general. For sex presents no bar to the reception of suggestions. The cases of change of personality by alternation cannot be better illustrated than by the foregoing ones of Victor V—— and Félida X——. Examples of alteration of personality by reversion are not uncommon in medical practice. A patient in delirium frequently fancies himself a boy again, and forgetting everything which has occurred in recent years, will remember and act over again trivial scenes of an apparently long forgotten childhood. Dr. Pitres (*loc. cit.*) gives an interesting account of an hysterical patient who had frequent attacks of amnesia, during which the events of the preceding few years were absolutely forgotten, so that it was impossible to make her recognise her friends of the time. Not only did she speak and act as she had done in her youth, but it was evident that her mind was working in exactly the same way as it had done then. Dr. Pitres found he could at any time produce this reversion by suggestion. In the hypnotic state and in many somnambulists it is possible to induce this amnesia by suggestion, by affirming in the hypnotic state that she was any specified age, by making her fix her attention strongly on some event in her past life and then hypnotising her while she so thought of it, or by pressing on certain parts of the body which seemed to act as her ideogenic zones. In this case of Albertine M. she suffered from hemianæsthesia in her normal condition, but if by

hypnotic suggestion she was put back to a period prior to the incident of this symptom, *i.e.*, to her childhood, this condition no longer was present. Just as we have seen in the case of Victor V——, *per contra*, the induction of paralytic symptoms brought the patient into the mental condition which went with this symptom. The two cases are most instructive as showing the very close relationship between psychical changes and physical states.

Dr. Auguste Voisin has recently kept several of his patients for long periods of time in a state of altered personality, and there is no doubt but that in effecting moral reformation we do not so much create new personality as bring out traits of character which have either been forgotten or have remained undeveloped.

Liébeault describes the case of a Pole who was under his treatment for epilepsy. The man was very excitable and had been a soldier in the Polish rebellion. After each attack he became so violent that it took six men to hold him in bed. During his violent struggles he would shout and declaim as though in the heat of a desperate engagement, and even after he had become calm and quiet he would for some minutes believe that he had been fighting in a battle, and would recite the incidents he thought he had witnessed. The vision was always the same. A desperate fight against overwhelming odds, a town in flames, and the whole scene illuminated by a moon of fantastic form.*

The head-master of a boys' school tells me that he is obtaining good results in the suggestive treatment of moral disease and of mental torpor, and some of his pupils declare that when they have been hypnotized their sums 'come easier' to them than usual. Some time since, I was called upon to treat a case of moral perversity—a young girl, who has greatly improved under the influence of suggestion. From being idle and rebellious, she has, so I am told by her teachers, become docile, and has developed a decided aptitude for study. A 'chronic'

* 'Thérapeutique Suggestive,' p. 142

medical student, in about his tenth year, who consults me occasionally, assures me that my treatment 'winds up' his intellectual machinery, so that he can work several hours a day after each visit. But as the gentleman is only slightly hypnotizable, I do not take much credit to myself for this good effect.

It should be clearly understood that the use of hypnotic suggestion as an educational influence should be carefully restricted and never allowed to interfere with the healthy development of individual character. It should be reserved for cases where there is inherited or acquired vicious tendency, and should even then be resorted to only when other means have been fairly tried and found ineffectual. We know that in some young persons there is a complete breakdown of the moral self, while in some others it seem entirely absent, and it is for children of this debased or deteriorated type—such children as abound in our reformatories—that this moral treatment will prove most useful. I would especially mention its power to cure the inherited craving for alcohol, which so frequently appears in the neuropathic children of drunken parents.

Many persons have objected to the educational use of hypnotic suggestion, on the ground that it is a tampering with the 'free-will' of those influenced. It is true enough that the will should not be *weakened*, but who would say that it should not be interfered with? Is it not a fact that all education and all moral training are an interference with free-will? The child who delights in school-work needs no coercion to application. The child—if such a one there be—who has no moral faults whatever, requires no exhortations to unselfishness, truthfulness, and other good qualities. But most children prefer play to work. Some will tell a lie to escape punishment; all, so it seems, have a variety of failings and bad habits, so that reformative and preventive means must be used to train them to industry, truth-telling, and general excellence of conduct. It is, as I have said, only when those ordinary means have failed that hypnotic suggestion should be

employed, and then it should work on the same lines as all judicious education : the child should not be made to obey like a slave or an automaton, but should be guided by suggestion, as by a wise teacher, to practise *auto*-suggestion, and thus, by his own will-power, to aid in the overcoming of bad habits and the acquiring of good ones.

When the mental powers are deficient by reason of faulty brain structure, hypnotism cannot, of course, do much. No one professes to create new gray matter by hypnotic suggestion. Still, the records of our asylums show that even when the brain is almost rudimentary, educational influence may be successful in producing decent and orderly habits. But in complete idiotcy it is almost impossible to hypnotize, and suggestions are powerless through want of a *point d'appui*.

At the Nancy Congress, Dr. Liébeault and others gave instances of dull, idle, and unmanageable children who by suggestion (combined in some cases with judicious home influence) were made models of industry and good behaviour. A schoolboy who had habitually kept at the bottom of his form was by this treatment so incited to work, that he soon occupied a place at the other end. Another child, seven years of age, so obtuse as to be almost an idiot, was so benefited by suggestion, that in three months he could read, write, and understand the four rules of arithmetic.

Dr. Hack Tuke, speaking of 'moral insanity' (*Journal of Mental Science*, 1885), well puts it when he says that in cases of this description, where, perhaps, the disposition and actions of one member of a family will by their perversity bring untold suffering on his relations, there is undue development of the lower or automatic functions, whilst the higher centres are defective, and that it should be our object to correct this disproportion by suppressing some functions and developing others. If (he goes on to say) the horses drawing a coach run away in consequence of the driver being drunk, it is not the horses we should

blame for the accident, but the incapable driver who is no longer able to hold the reins. We know that badness may proceed from two causes, which Dr. Tuke calls moral resolution—positively bad, and moral irresolution—negatively bad. It is probable that in either case, if the offender were caught young, hypnotic suggestion would prove a valuable adjunct to other reformative agencies.

In course of time the new personality, induced by suggestion and encouraged by religious ministration and teaching, will displace the old, and a complete moral revolution will be the result.

In those cases, a state of double consciousness,* such as one sometimes sees in natural somnambulism, was probably induced. A subject of this kind may live two alternate lives, one good, the other evil; and in one of these lives she will be unconscious of her actions in the other (Forbes Winslow, *op. cit.*, p. 420). In some instances both of these utterly different lines of conduct will appear so rational that it is difficult to decide which is natural to the subject.†

One is frequently asked whether the cures worked by suggestion are of a permanent character. To this I reply, they are as permanent as cures effected by any other means. Relapses occur in many diseases, no matter what treatment has been employed; sometimes through some carelessness on the part of the patient or of those who have charge of him. A person who is cured of rheumatism to-day, may to-morrow get fresh cold and develop a new attack, or other symptoms. But with proper attention, and the customary precautions as regards diet, rest, temperature, etc., the success of this treatment is not transitory. The improvement effected by its means is often so marked and so rapid that patients are tempted to discontinue its use, and return to their ordinary habits before the cure is perfected and the habit of disease broken, for-

* Writers on somnambulism give many instances of this double consciousness.

† The story of 'Dr. Jekyll and Mr. Hyde' might be founded on one of these cases.

getting that when a diseased condition has existed for some time it probably has taken firm hold on the system, and is not to be dispelled in a day. Sudden cures are apt to be fallacious, as are such cures by other modes of treatment; and though brilliant results are sometimes attained they can never be counted upon, and there should be no disappointment when improvement is a little delayed.

I have certainly found two statements commonly made about the treatment to be fallacious. The first, that the effects are temporary, and that amelioration of the symptoms is followed by speedy relapse and a deeper sinking into the slough; and the second, that if a relapse occurs, the patient will not a second time be benefited by the treatment. I have patients of various ailments who were free and cured two years ago and have had no relapse, and others who, from the nature of their disease, have experienced relapses, have almost invariably been relieved by subsequent hypnotization, and more speedily than on the first occasion.

On the very threshold a difficulty may occur, the patient will perhaps appear insusceptible. This need not cause discouragement, for in many cases the hypnotic influence is not felt until after three or more séances. Comparatively few persons remain insusceptible* to it; and when

* See tables, page 54. An apparent trifle may cause one operator to fail where another will succeed at once. I know a very able foreign physician, who completely failed to influence two English patients, because he smelt of garlic, and so called up disturbing emotions in their minds. I was once unsuccessful with a gentleman, who afterwards told me the reason of my failure. He imagined, as many do, that it is essential for the operator to possess great strength both of mind and body When I touched his eyes to close them, he observed a slight tremor in my hand, and attributed this to a physical or mental weakness, which, he argued, must prevent my influencing him—a stranger, and a strong man of high intellectual capacity. The idea called up a resistance, which rendered him insusceptible. Subsequently, when I had explained to him that my personal attributes were, in this matter, of no consequence whatever, he easily fell into a profound hypnotic sleep. There is, however, a proportion of sane persons—perhaps 10 per cent.—who are to all intents and purposes unhypnotizable. This insusceptibility seems to depend upon idiosyncrasy, and is neither a sign of commanding intelligence nor the reverse.

once it is established, the hypnotic state is afterwards more easily induced, and tends also to become more intense, though this does not necessarily follow.

It is very difficult to eradicate a deeply-rooted popular belief, and it is not very easy for a practitioner of the suggestive system to avoid being called a magnetizer, since artificially induced sleep is the common preliminary of the treatment. But, as I have already stated, Dr. Liébeault and his disciples absolutely reject the fanciful theories regarding animal magnetism which were held fifty years ago. They contend that no unusual gifts are needed to practise the system, and that the chief requisite is confidence. (The foot-note on p. 93 shows how want of confidence may be detected by the patient, and how the very suspicion of it will cause failure.) With wider experience comes increased confidence in one's self and in the system, followed naturally by increased success.

But 'majus remedium majus venenum' is a true saying, and it would be an exception to all rule if such a powerful remedy as suggestion were not liable to abuse. When dynamite was discovered, no one denied that the lawless and desperate would, if possible, turn it to bad account, yet it was not tabooed for this reason, but its manufacture and distribution have been surrounded by precautions and restrictions, and it is allowed to occupy its proper place in applied science in the hands of miners and engineers. It is interesting to read in contemporary records the controversy which raged round the introduction of chloroform into medical practice fifty years ago. All manner of evils, physical, religious, and moral, were foretold as certain to follow man's temerity in interfering with the laws of nature, but Sir James Simpson was a doughty champion, and was not prevented from making public his grand discovery because nervous people were afraid it might be employed for evil purposes; nor is its use forbidden, though every year a certain percentage of crimes and outrages are committed by its

aid.* Poisoning by arsenic, corrosive sublimate, and digitalis sometimes occur, and yet these drugs occupy a prominent place in the pharmacopœia. For it is found that although those powerful agents are sometimes used to inflict harm, the evil caused by their illegitimate employment is so outweighed by their usefulness that no one would think of suppressing them So with hypnotism. Its power for good is undoubted; it fills a place that nothing else can fill so adequately, and used with proper precaution and under necessary restrictions, it is perfectly safe.

Dr. Sémal, in the discussion on hypnotism in the Belgian Academy of Medicine (June 30th, 1888), having condemned the prostitution of the system by travelling *prestidigitateurs* and charlatans, spoke strongly in favour of having it included in the medical curriculum of the universities, as being the only legitimate means of making it known. 'This course,' he said, 'would prevent its being used empirically and stupidly, and would keep it as a powerful therapeutic agent in the hands of the medical profession so long as the art of healing is practised.'

The exploitation of hypnotism as an exhibition at public entertainments has already been prohibited by law in Switzerland, Holland, and other countries, and when the true position of this treatment is understood among us, the same restrictions will probably be enforced in England.† 'The performance of experiments in public,'

* I am informed by credible witnesses, who were living in Edinburgh at the time, that Professor Simpson used to invite his friends to his house to experiment with the new agent, and it was quite common for several of the guests to narcotize themselves that they might compare experiences. This affords another analogy between the introduction of hypnotism and that of chloroform, and we may hope that as chloroform soon got beyond the popular and experimental stage, so may hypnotism be freed from its platform and drawing-room exponents.

† One of the objects of the International Congress of physicians practising hypnotism, which was held in Paris in 1889, was to pass a strong resolution dealing with this question, and calling upon Governments to render public exhibitions of hypnotism illegal.

write Binet and Féré (*op. cit.*), 'should be condemned, just as we condemn public dissection of the dead body, and vivisection in public. It is certain that there are still graver objections to hypnotic exhibitions, since they are liable to produce nervous affections even in those who do not propose to be the subjects of experiment.' Such experiments, I maintain, are always useless and often cruel, besides being an offence against the dignity of humanity. The contortions and exclamations of a patient under chloroform are often interesting, and might by some persons be thought amusing, but we should hardly choose to excite them for the gratification of idle curiosity or the entertainment of the multitude.

Since the foregoing pages were written, a remarkable development of hypnotism has taken place in this country, but unfortunately not altogether in the right direction. Several 'Hypnotic Societies'* have been founded for the instruction of the public in the 'art and mystery of hypnotism,' and it seems impossible to take up a newspaper or magazine without finding some reference—generally a misleading one to the subject. It is to be feared that the interest of the public in this branch of science is somewhat outrunning that of the profession—a most unfortunate circumstance.

By all means let people be made aware of the existence and nature of an influence to which most of us are susceptible, and some to a dangerous degree, for to be forewarned is to be forearmed, and we shall not have foolish persons playing with such an edged tool if they know how serious may be the consequences of their trifling. A paragraph which lately went the round of the papers shows how ignorance may lead to awkward results. A couple of young men went to a café after attending a 'magnetic' performance, and one of them, full of what he had seen, proposed 'magnetizing' the barmaid. She consented, and he imitated the 'passes' made by the

* See letter on this subject by the author in *The Lancet* and *British Medical Journal*, Oct. 15th, 1889.

lecturer. Very soon the subject fell into a hypnotic trance, from which neither of the young men could arouse her. Like Ali Baba's brother, they had got into forbidden regions, and did not know the password which should let them out. The police were sent for, the young woman was taken to the hospital, where after a time she awoke, and the operator was arrested and locked up.

The following case has recently come under my own notice, for my advice was sought by the much-perplexed experimenter:

A young gentleman, after a few lessons from a public magnetizer, went to stay in a country house where, among other guests, was a young lady of well-marked hysterical temperament. To show off his recently acquired knowledge, and to afford a little amusement, he undertook to hypnotize this girl, and after a few minutes' employment of the method known as *fascination* the subject fell into a profound trance. He had some difficulty in arousing her, and ever since she has had frequently recurring fits of cataleptic trance, which are always ushered in by an outburst of screaming, in which she cries: 'He is doing it now!' She is under the impression that the young man is constantly exercising a power over her, though he is hundreds of miles away, and her nervous system is reduced to a state which causes serious alarm to her family. That her idea is absurd, and that such action at a distance is impossible, renders the matter none the less painful for the young lady and her family, or less awkward for the rash experimenter. Such an occurrence naturally fills people's minds with dislike and distrust for hypnotism, for they confuse a wanton and clumsily conducted experiment with a medical treatment of which hypnotism forms only a preliminary step.*

* A story told by the late Prof. Christison, of Edinburgh, bears on this point. He one day mesmerized a highly nervous lady, and when she awoke he told her that the following day, at noon, he would repeat the operation from a distance. At that hour the Professor was lecturing, and had quite forgotten the occurrence; nevertheless, the lady, in

On the occasion of an academic discussion on hypnotism at the annual meeting of the British Medical Association, at Birmingham, in 1890, I read extracts from letters I had received from the best-known physicians practising hypnotism at home and abroad. Bernheim, Moll, Forell, Van Eeden, Milne Bramwell and others, all wrote that they had never seen any injurious effects follow the use of hypnotism by trustworthy hands. Dr. Liébeault told me that in his thirty years' experience he had had no bad results, and referred me to an article he had recently published, entitled 'Confession d'un Médecin Hypnotiseur,"* in which he has set forth the little mishaps which have happened from time to time in his clinique.

I was extremely glad to get this mass of testimony, as it disposed of an idea, not confined only to the uneducated, that medical hypnotism may induce epilepsy, hysteria, chorea, etc. Dr. A. T. Myers also informs me that the subjects he has seen hypnotized many scores of times for the Society for Psychical Research, over long periods of time, are none the worse for their experience. Dr. Liébeault is undoubtedly perfectly correct when he states that where any evil result has followed the treatment, it has been due to want of skill or judgment on the part of the operator. I am convinced that hypnotism is an agent requiring careful handling in many cases; this was brought home to a medical friend of mine, whose experience is worth recording. He was attending a lady suffering from bronchitis complicated with asthma and a weak and fatty heart. He thought to quiet her spasmodic attacks by suggestion, and he induced a state of profound hypnosis with great facility. He continued to suggest easier and quieter breathing, and was pleased to see how the patient responded and how respiration became more

---

spite of all her husband could do to prevent it, fell into a profound trance, and said she felt she was being mesmerized. Expectant attention and auto-suggestion produced the effect, and such is found to be the explanation of most of the stories which are foisted upon a credulous public.

* *Op. cit.*, p. 308.

and more tranquil. He had not hypnotized many people, and looked upon the process as being quite unattended with risk, until the breathing, having become more and more feeble, suddenly stopped altogether, and the heart-beat became imperceptible. My friend feared the patient would have died—the first victim of hypnotic suggestion—and was intensely relieved when the spasmodic breathing was again heard. As far as I know, no record exists of its having proved fatal. Heidenhain refers to experiments of this kind as being distinctly dangerous, and states how he nearly stopped the action of his brother's heart by continued suggestion.

But while contending that the risks of hypnotism in proper hands are infinitesimal, we are strongly impressed with the belief that its use by the ignorant or ill-disposed is fraught with most serious risk to health. Dr. M. J. Nolan relates, in the *Journal of Mental Science* (Jan., 1891), a case of stuporose insanity which he believes was due to the ignorant employment of hypnotism. The patient was a drunken and dissipated soldier, broken in health by his excesses, and he was hypnotized by a travelling 'professor.' Dr. Van Eeden (*loc. cit.*) records a case of hystero-epilepsy brought on in the same way, and Charcot (*Revue de l'Hypnotisme*, July, 1889) contributes notes of a case in which a woman, after being frequently hypnotized by a magnetizer at a fair, became aphasic for several months, and suffered in health in other ways. Dr. Giles de la Tourette read a paper dealing with this subject before the Paris Society of Legal Medicine, in December, 1888 (*Revue de l'Hypnotisme*, Jan., 1889), and demonstrated how the passage of magnetizers through the towns of France had been followed by serious epidemics of hysteria and other nervous troubles.* He adds: 'Our country (France) has become the refuge of all the magnetizers, and their advertisements cover the walls of Paris.' Such a complaint can no longer be made, for public performances are now

* 'Dangers de l'Hypnotisme et interdiction des représentations théâtrales.' *Ann. d'Hygiène*, vol. xxi. Paris, 1889.

forbidden by the municipality. England is now almost the last refuge of the expatriated magnetizers.

Dr. Cruise* mentions a case in which 'an attack of brain fever' followed the induction of hypnosis by an ignorant and irresponsible operator, and deduces from this and other cases the argument that 'it is highly improper and possibly dangerous for anyone who is not an educated physician, and familiar with the practice, to attempt hypnotism, and that it should never be induced without due reason, precaution, and design.'

Dr. Déjerine, Professeur Agrégé of the Faculty of Medicine in Paris, is convinced that the continual making of injurious and absurd suggestions is fraught with evil consequences to the subject, and especially so if the hallucinations are allowed to persist over considerable periods of time. He says the time may arrive when the operator may find himself unable to remove the morbid symptoms he has called into being (*Revue de l'Hypnotisme*, Jan., 1891). But he adds that he has never seen hypnotism produce any bad effects when it has been properly used.

Dr. Julius Solow† records a case where an amateur hypnotist hypnotized a friend by making him look fixedly at a diamond ring. The subject had severe convulsions and lost the power of speech. Subsequently, looking at any bright object caused him to become violently excited. Commenting on this case the *British Medical Journal* says (March 28th, 1891):

'It should be a warning to amateur hypnotizers and to the foolish people who allow themselves to be played upon by these dangerous showmen. . . . It ought to be understood that hypnotism recklessly played with is capable of doing very serious mischief, and it is the duty of the medical profession in every town to warn the public of the serious risks which are being run.'

The case of Ilma S——, so fully described by Kraft-

* *Dublin Journal of Medical Science*, May, 1891.
† *New York Medical Journal*, March 14, 1891.
‡ Quoted in *Brain*, April, 1891.

Ebing, is frequently quoted as an example of the dangers of hypnotism, and it gives us some idea of what must be the mental condition of the unfortunate persons who are being constantly hypnotized by professional showmen.

Several Italian observers have recorded cases of grave mental troubles following the abuse of hypnotism by public showmen and others. Fiegerio describes a case where the subject, a young woman, after being experimented on by Donato, became affected with spontaneous somnambulism accompanied by impulsive tendencies to strike and destroy. 'American Journal of Insanity,' April, 1891.

If a patient should take it into her head to imagine that one was having an undue personal influence over her, as in the case referred to on p. 97, the course to adopt is plain. The physician should decline to operate again, and if the idea persists he should obtain the assistance of a colleague, whom he should get to hypnotize the patient for him, and to suggest to her the disappearance of the delusion. I have found it necessary to act thus in one case, and the plan was completely successful. The patient, a highly hysterical lady of a certain age, and unmarried, developed a craving for hypnotism in much the same way as she might have for alcohol or morphia.

There is another reason for the careful regulation of the use of hypnotism, which should appeal to all those who have the progress of science at heart. The process of hypnotizing an ordinary subject is so simple, that it seems absurd to talk of teaching it to a person of ordinary intelligence and liberal education; to see it done a few times is to be able to do it one's self. Of course this is the least part of the treatment, and in fact it bears the same relation to the Nancy method, as the administration of chloroform does to a subsequent surgical operation. The practice of hypnotic suggestion is surrounded by pitfalls which only the operator with a medical training can avoid, and the results of the treatment are only of scientific value if they have been checked by investigators accustomed to gauge the value of evidence. At the pre-

sent time, when the treatment is, we may say, in its infancy, we want every fact scientifically investigated, and therefore it is of immense importance to restrict the field of hypnotism to trained medical workers.* If Dr. Elliotson, a physician of rare ability and a man of unimpeachable probity, had acted with the discretion shown by Bernheim and other foreign physicians, he would probably have arrived at the truth, which it required another generation to extract from a mass of superincumbent rubbish.

There is another danger from the ignorant use of hypnotism as a remedial agent. I cannot agree with some writers who seem to contend that pain must not be interfered with, as it is a part of nature's recuperative process,† but it is often a danger-signal which should not be neglected. Covering the signal does not do away with the danger it denotes. I have heard a patient suffering from gastric ulcer told by an ignorant magnetizer that she was to go home and eat a beef-steak; and a man with mitral disease directed to run up to the top of a high house. So great is the power of suggestion, that in both these cases the order was obeyed, and the symptoms were masked for a time.

Some persons, especially some young women, are so susceptible, that one has only to get their consent and to bid them go to sleep to induce a condition of profound somnambulism. In such cases 'expectant attention' alone seems sufficient, and it is matter for surprise that we do not find more people falling into spontaneous somnambulism, as the condition is so easily induced.

It is these subjects of unstable cerebral equilibrium who are most liable to danger from the abuse of hypnotism, and it is these, consequently, that we should especially seek to protect. I need hardly say that the use of hypno-

* I refer, of course, to medical hypnotism, with which I am chiefly interested. The scientific value of work done by such trained observers as Messrs. Gurney and Myers has been already referred to.

† *Vide* article by Dr. Sinclair Thomson in the *Westminster Review*, December, 1890.

tism towards the accomplishment of a crime or misdemeanour should be regarded as a serious aggravation of the offence.

Charcot in France, Ladame in Switzerland, and Sémal in Belgium, have done much to stop the public exhibition of hypnotism in those countries, by demonstrating the physical and mental evils which have befallen the subjects of such performances. Those who witnessed a so-called entertainment of this kind given in London last year, must remember how fatigued and languid, or excited and hysterical, were many of the subjects. The aim of a public entertainer is to excite wonder or mirth in the minds of his audience, and so long as he can evoke a sufficiently startling note, he cares little, even if he fully understands, that the instrument he plays upon is the delicate organism of the higher brain centres.*

There has been a great deal of correspondence in the daily press about hypnotism and suggestion, and one writer in an evening paper recently complained that after being hypnotized she felt for some time a disagreeable sensation, as of being 'drawn to the operator.' I believe that such a sensation, unless suggested during hypnosis by the operator, could only be the result of hysterical imagination, and I have never seen anything of the kind in my practice. Such a statement, however, emphasizes the importance of the rule, that hypnotism should be practised only in the presence of witnesses, and that the patient should be thoroughly awakened before leaving the consulting-room. The best guarantee against the abuse of hypnotism will be its recognition as a branch

* Apprehension of danger rests very frequently upon the misconception that loss of volition and amnesia are ordinary accompaniments of medical hypnotism. Such an idea arises from witnessing public performances, and it is difficult to eradicate. The physician who employs hypnotism as a remedial agent neither seeks to obtain somnambulism —in which state alone the patients' memory and will-power are seriously affected—nor, as a matter of fact, does it occur, except in a small proportion of cases. The condition ordinarily attained, and here I can speak from personal experience, is one of gentle lethargy, very similar in character to that agreeable state between sleeping and waking which most of us experience when, after being called in the morning, we give ourselves five minutes' grace before getting up.

of medical treatment, to be used by medical men with the same caution as anæsthetics and poisons in general.

The practitioner who uses hypnotism should do so with the same precautions which he adopts in administering an anæsthetic. Chief among these are obtaining the formal consent of the patient, and, when expedient, of his friends, and never operating save in the presence of at least one witness. Thus he will guard himself and his patient from all possible imputation of wrong-doing or abuse of power. I need hardly add that a patient desiring hypnotic treatment will, if commonly prudent, use discrimination in choosing a physician, and will avoid placing himself under the influence of one not known to him, at least by reputation.

The dangers of hypnotism are, I believe, exaggerated. The stories told of persons obtaining undue influence over others by its means are mostly fables, which experience shows to be impossible. Professor Bernheim asserts, and is borne out by other observers, that no one can be hypnotized against his wish, and that in fact it is his own will which sends him to sleep. Nevertheless, there is no doubt that after a time the on-coming of sleep is less under the patient's control, and when, as we see sometimes at Nancy, a person is continually being hypnotized by the same operator, the hypnotic state can be reproduced with surprising readiness. I believe that in certain hysterical cases there arises a craving for this, as there might for any other sedative; but such a craving has little chance of being encouraged if the suggestive practice is confined to its proper sphere. A physician does not go on prescribing narcotic drugs because a patient has a craving for them, but, on the contrary, forbids their use when they cease to be beneficial.

The physician practising suggestion may protect his over-sensitive patients from the dangers of being hypnotized by a stranger. He has only to impress upon them, while they are in the hypnotic state, that no one can produce any such effect upon them without their free will

and formal consent. The most practised operator would try his art in vain upon one so protected, as Drs. Liébeault and Bernheim have repeatedly proved,* and as I myself

* These physicians were in the habit of hypnotizing an hysterical patient, who used to fall into somnambulism as easily in the hands of one as in those of the other. On one occasion, while she was in this state, Dr. Bernheim told her that she was not to be influenced by Dr. Liébeault. She awoke quite oblivious of this suggestion having been made, and soon afterwards went to Dr. Liébeault, who was ignorant of what had taken place, and asked him to hypnotize her as usual. To the surprise of both patient and doctor, all his attempts to do so were futile, and it was only on communicating the fact to Dr. Bernheim that his colleague found its explanation.

This is so important a point that I asked Dr. Outterson Wood (secretary of the British Medical Association Committee on Hypnotism) to put it to the test, and he kindly consented. Mrs. M——, who is frequently referred to in these pages, was the subject. The first occasion was in November, 1890. I had not hypnotized Mrs. M—— for several weeks, and had made no suggestions in reference to her not being hypnotized by anyone else for at least six months. I told her that Dr. Outterson Wood wished to hypnotize her, and left her alone with him. When I returned in half an hour I found her asleep, and Dr. Wood informed me he had succeeded in hypnotizing her after trying the method of fascination for about twenty minutes. He was obliged to leave the house to keep an appointment, and I then found Mrs. M—— would not reply to my questions, and was apparently in a deep trance, and only *en rapport* with Dr. Wood. Adopting Liégeois's plan, I said in a loud voice to a patient standing by, 'Mrs. M—— is fast asleep now, but she will awake in exactly five minutes.' Though apparently unconscious, her ears evidently took in the suggestion, and her mind acted upon it, for she awoke to the moment.

This experience affords a hint as to the course to adopt if called in to a case of trance suspected to be of hypnotic origin. Though the subject seemed absolutely unconscious, and would doubtless have proved anæsthetic to violent stimuli, her brain responded to the stimulus of an indirect suggestion.

We repeated the experiment in June, 1891, but I previously hypnotized her daily for three days, and each time suggested that on no account was she to allow herself to be hypnotized by anyone else, and I got her to promise that this should be so. I again left Dr. Wood with her alone, and told her that he wished to hypnotize her. She did not remember having promised that she would not allow herself to be hypnotized, but she expressed disinclination for the operation. However, a little persuasion made her give her consent, and Dr. Wood again sought to influence her by fascination. When I returned I found her very hysterical, and complaining of feeling faint and ill; but she was not hypnotized, though the process had lasted twenty minutes. I hypnotized her at once by stroking the forehead, and the disturbance of breathing and circulation disappeared in a few moments. She awoke feeling quite herself, but told me she would never allow anyone else to try to hypnotize her, as the suffering she experienced was acute, and she would have given anything to have escaped it by closing her eyes and going to sleep, but felt constrained

have seen. I always safeguard my more susceptible patients against the danger of being hypnotized against their will by telling them that no one will be able to influence them without their previous consent in writing, and I find this plan acts admirably. In fact, the more susceptible the patient, the greater the effect of this deterrent suggestion, so that I have seen practised operators experiment on such subjects without producing any other effect but restlessness and discomfort. In one case, that of a young girl, who is one of my best subjects, I asked her to allow a lady doctor to hypnotize her, and she gave her consent. Nevertheless, she proved quite insusceptible to the lady's persevering attempts. The patient told me afterwards that she had a very strong objection to being hypnotized by a stranger, and that her consent was only assumed.

Disregard of this simple precaution is to my mind one of the most regrettable features of Dr. Luys's clinique Some of the young women there seem to be at the mercy of anyone who cares to exert an influence over them, and also to be subject to auto-hypnosis.

I may fitly bring this chapter to a close with a quotation from Professor Bernheim's oft-referred-to work: 'It is the duty of the physician to select what is useful in suggestion, and to apply it for the benefit of his patients. When, in the presence of sickness, I think that therapeutic suggestion has a chance of success, I should consider myself to blame as a physician if I did not propose it to my patient, and if I did not even make a point of getting his consent to its employment' (*op. cit.*, p. 580).

---

to keep awake. This patient had been hypnotized by me the first time I tried in less than two minutes, and there is no doubt but that any competent operator would have been equally successful. Her yielding to Dr. Wood's first attempt only after a long struggle, and her not yielding at all the second time, seems to offer conclusive evidence that so far from previous hypnotization necessarily increasing a person's subsequent susceptibility, it may be used so as to very greatly diminish it.

CHAPTER VI.

Some Points in the Physiology and Psychology of Hypnotism — Authorities and their Theories —Expectant Attention, Suggestion, and Inhibition.—Induction of Functional Aphasia, and what it teaches. —Exaggeration or Suppression of certain Senses and Functions in the Hypnotic State.—Automatism in Hypnotism and in the Pathological State.—Amnesia.—Hypnotism compared with the Action of Poisons.—The Double Brain, its Single Action in Health and possible Dual Action in Disease and in the Hypnotic State.—Cases illustrating this.—The Induction of Automatism without Hypnotism

THE study of hypnotism will doubtless do much to advance our knowledge of the higher brain functions, and it is well to bear in mind that, as the phenomena depend upon an induced psychical condition, they may not be explainable by any physiological method which we at present possess. Charcot, Richet, Bernheim, Heidenhain, Hack Tuke, Ferrier, Hughlings Jackson, and others, have, however, done most useful work by building up a working hypothesis, which serves as a standpoint for future investigators.

Expectant attention, suggestion, and inhibition are the processes which afford an explanation of the commonest phenomena.

Expectant attention seems to be a necessary psychical preparation, for an ordinary person may gaze at an object for an indefinite time without producing hypnosis, unless he expects such a result to ensue. Were this not so, spontaneous somnambulism would be of very common occurrence.

Brown Séquard and other neurologists show that when one cerebral centre or function is used to excess, the others become, for the time being, paralyzed or inhibited; and Dr. Maudsley says ('The Pathology of the Mind,' p. 58), that two nerve centres of mental function cannot be in equally conscious function at the same time. Continuous stimulation of one centre implies

[illegible] [illegible]

[illegible] [illegible] [illegible] [

ideism—the idea of a fixed image, upon which he must keep his eyes and attention; and, finally, to a state of vacuity, in which there is complete absence of ideas. Into this swept and garnished chamber of the mind ideas can be implanted by the hypnotist; and, as a ray of light thrown into a darkened room will show forth with exaggerated force and brilliancy from the contrast with the surrounding darkness and the exclusion of conflicting rays, so will the idea suggested to the imagination of the profoundly hypnotized subject operate with immensely increased effect from the absence of conflicting and corrective impressions derived from the whole environment.

As the patient, on recovering consciousness, in some cases may continue the speech or occupation which was interrupted by an injury to the brain, so the hypnotized person, on being aroused, will sometimes carry on a phrase or an action from the point at which it was broken off by hypnotic influence—thus showing how completely the brain, as the organ of mind, has been paralyzed But whereas in the coma of disease the paralysis is absolute and complete, in induced somnambulism it is partially or entirely removable at the command of the operator. He can arouse any centre to more than its normal functioning activity, so that the subject, who a moment before was insensible to the fumes of strong ammonia held close to his nostrils, will now recognise the faintest odour; and he who now lies in a condition of muscular impotence will, at the word of the operator, perform extraordinary feats of strength. The same holds good with the expression of the emotions. From a state of abject misery, the subject may be suddenly transported to one of bliss, and be it noted that he shows both conditions far more markedly than he would do if awake; for in the normal state our emotions are subject to that inhibitory influence which we call self-control, and which is non-existent in the somnambulic subject, over whom each passion, each emotion that is called up, has for the moment an undivided sway.

If I am told to raise my arm, the order is conveyed to

the auditory centre, and thence referred to the ganglionic cells of the cortex, in which the highest functions—attention, volition, comparison, etc.—may be supposed to reside; if endorsed by the will, it is despatched through the motor centres, basal ganglia and spinal cord, to the muscles, which perform the required action. Even if my will refuses to obey the order, it may happen that an involuntary stimulus is sent downwards, sufficient to cause some slight muscular movement, which, however, is promptly checked by the inhibitory action of the highest centres. But suppose the order is given in an imperative tone to one accustomed to obey the voice of authority—a soldier,* for example—it will probably be executed automatically, without any functioning whatever of the will; the command is referred from the auditory centres, where it is taken in, direct to the motor centres, and through the basal ganglia to the muscles of the arm. In such a case, a like order has been so frequently followed by its execution that the two have become cause and effect, and the action is automatic or cerebro-reflex, and almost beyond the man's control. A hypnotized subject is in much the same position; his intellectual centres do not work, and an order suggests its fulfilment without, and indeed sometimes contrary to, volition and reason.

A severe mental shock will sometimes induce this automatism; the various duties and actions of everyday life will then be gone through as in a dream, and often without leaving any recollection of their performance. A severe blow on the head will occasionally bring about a like condition—as in the case of a gentleman, aged twenty-one, a patient of mine, who was thrown from his horse while hunting. He subsequently recollected riding at the

* There is a well-known story of an old soldier who, while carrying home his Sunday dinner, was hailed by a practical joker, who called, 'Attention!' His arms immediately fell into the required position, and the dinner rolled in the gutter. Assuredly, volition had no voice in this matter.

The subjoined diagram (adapted from the 'Encyclopædia Britannica,' article 'Physiology') will assist the comprehension of voluntary and automatic actions.

fence at which he came to grief, but had totally forgotten everything that followed until the end of the run, which lasted for about fifteen minutes after his fall. Yet I have the report of eye-witnesses, who state that he was up in a moment, mounted his horse, and joined the field as if

Id., Ideational centre; Vol., Volitional centre; Em., Emotional centre; Sp. S., Centres for special sensations; Eq., Centre for sense of equilibrium; Mo., Motor Centre; G. S., Centre for general sensation; Inh., Inhibitory centre; Rf., Reflex centre; M., Muscle; Gl., Gland; H. and V., Heart and Vessels. The lines show the association of one centre with the others, and the arrows indicate the direction taken by nervous impulses. Hypnotism may be supposed to cut off or inhibit some of these associations, *e.g.*, the volitional from the motor.

nothing had happened; but that he wore a dazed expression, and made unintelligible answers to the remarks addressed to him. He is always a plucky rider, but on this occasion he surpassed himself, taking a dangerous fence which only one other horseman attempted, and which he would probably have avoided had his reasoning faculties been at work. He felt a severe pain in the vertex, which had been struck in his fall, and for a few hours remained in a somewhat dazed condition.

There is no memory of acts done in the somnambulic state, because that association of centres and balancing of one mental function by another which constitute ideation, self-control, attention, volition, comparison, and memory are for the time being rendered inoperative. A patient under hypnotic influence may be compared to a complicated machine, which is thrown out of gear, and yet can be so adjusted that some parts can be made to act independently of the others.

As regards the physical basis of the phenomena, recent researches in physiology enable us to form a fair working hypothesis. Heidenhain supposed that there must be anæmia of the brain, until he found that his brother could be hypnotized as easily as usual immediately after taking a physiological dose of amyl nitrite.

Dr. Barwise thinks nitrite of amyl, by lowering the blood tension, leads to congestion of the membranes of the brain, and that these exert direct pressure on the contained organ, and so empty its vessels. He finds that his best hypnotic subjects blush readily, and that they commonly become flushed while being hypnotized. He also finds that persons may be more easily hypnotized if the head is bent back so as to obstruct the return of venous blood from the brain. He therefore supposes that hypnosis depends upon congestion of the membranes with coincident anæmia of the cerebrum.*

Dr. Gerald Yeo, late Professor of Physiology at King's College, thinks Heidenhain's inference that nitrite of amyl causes general congestion of the brain is not a

* *Ob. cit.*, p. 12.

necessary corollary of the fact that it produces flushing of the face. He supposes that in hypnosis we have a condition of partial and local anemia of certain areas of the cortex.

Dr. Yeo has made a special study of hypnotism, and in his lecture before the King's College Science Society in 1883, he made almost the first serious attempt in this country to bring modern physiological science to bear on the subject. Starting from the analogy the innervation of the heart, which is supplied with excitor and inhibitory centres, bears to other organs, he argues that the more complex an organ the greater will be the need of a double check action, and the brain is the most complex of all the organs. He supposes that the functioning of the cortical cells, which forms the basis of higher cerebration, depends, as does the activity of other organs, upon their supply of blood, and to regulate their supply he supposes the existence of centres which he calls neuro-regulatory. Their action is of two kinds, neuro-inhibitory and excito neural.

The excito-neural centres watch over the nutrition of the brain-cells, and are in fact trophic centres for the cortex. The neuro-regulatory centres are kept *au courant* with the condition of each organ, and its wants and capabilities, through thin connecting fibres, and they act accordingly, either exciting or inhibiting their representative centres in the brain. When the blood supply is cut off from the cortical centres the functions of higher cerebration are inhibited altogether or in part, and unconsciousness or altered conditions of consciousness results. Some conditions of the organism cause a response from the neuro-regulatory centres in the form of an inhibitory impulse which puts the organ or function represented out of action, and others on the contrary convey a dynamogenic impulse to the regulatory centres. The influences which cause excito-neural action are stimuli having a great degree of intensity, *e.g.*, pain, noise, mental anxiety. The influences which produce neuro-inhibitory action with consequent decreased functioning of the cortical cells are muscular and mental fatigue (with the coincident accumulation of waste

products), and monotonous continuous stimulation of a sensory organ. This stimulation causes an impulse resembling that due to local fatigue to be sent to the neuro-regulatory centres, and these respond by inhibiting the activity of the cortical cells.

Preyer is inclined to consider hypnosis as a cortical neurosis, dependent on disturbance of the functions of the gray matter, due either to its inhibition or excessive activity. He supposes that hypnotizability indicates an abnormal amount of instability of the cells of the highest centres, and that in hypnosis the nutrition of the cortex is altered by the accumulation in its cells of oxydizable waste products (lactates). Unless we can speak of normal sleep as a neurosis, I should object to the term being applied to its hypnotic analogue as confusing, and as somewhat committing us to a theory.

Dr. Lehmann, lecturer on Experimental Psychology at the University of Copenhagen, has published the lectures he gave in 1889, and his book is one of the best which has been written on the subject. He works out very carefully the causation of natural sleep and the points wherein it differs from hypnosis. He considers that hypnosis closely resembles natural sleep, but differs from it in that the process is arrested or cut short before complete unconsciousness is reached. Sensation depends upon attention, and attention implies increased supply of nutrition to the part of the sensorium affected. In hypnotism parts of the sensorium are maintained in a state of activity by the attention of the subject being directed to them by the suggestions of the operator. There is increased nutrition of certain centres with corresponding innutrition of others, and the phenomena produced are the outcome of these changes in cortical nutrition. In the waking state there is continuous stimulation of the vaso-motor centres proceeding from the sensorium, and cessation of mental activity from fatigue or other cause brings about a discontinuance of the stimulation with resulting relaxation and dilatation of the cerebral vessels and blood stasis. Leh-

mann points out that functional activity depends on the amount of blood passing through an organ, and not on the amount present at a given time. In hypnosis he supposes there is a condition of tetanic contraction affecting the bloodvessels of the active part of the brain, and this tonic condition leads to increased rapidity of the flow of blood through them, increased nutrition of the part, and increased functional activity. The result of blood stasis from withdrawal of the stimulating influences arriving at the vaso-motor centres from the sensorium is drowsiness and sleep, and in ordinary sleep this condition affects equally the whole of the hemispheres. In hypnosis it is partial, and can be modified by the suggestions of the hypnotist, and the subject under his direction dreams a series of dreams. In the transformation of the natural into the hypnotic sleep the subject is so far awakened by the voice of the hypnotist as to be enabled to act upon his suggestions, but not sufficiently to regain the use of all the faculties. See also review in *Mind*, July, 1891.

Other observers consider that there is a condition of cramp of the arterioles of the brain; and all are agreed that delicate modifications in the cerebral circulation constitute the basis of the hypnotic phenomena. We have probably no drug which acts exactly in the same way as hypnotism, otherwise we might use it as a vehicle for suggestion, especially in the case of patients who are insensible to the hypnotic influence. Cannabis indica presents certain analogous symptoms,* and apparently exposes its con-

* If the following story is correct (and I have no reason to doubt my informant), the action of chloroform may, under certain circumstances, be considered analogous to hypnotism. At one of the large metropolitan hospitals there existed, about thirty years ago, a club of medical students, called the 'Chloroform Club,' the chief object of which was to test the action of narcotics, and especially of chloroform. The members met in each other's rooms, and consumed physiological doses of various drugs. On this remembered occasion chloroform was the narcotic chosen, and one of the members was, as usual, told off to keep sober and watch his companions. But the temptation proved too great for him, and he also inhaled a considerable dose of the poison. Into this room full of drug-excited young men came a late member who was extremely unpopular with the others, and one of them shouted, 'Here's ——! Let us kill him!' The horrible suggestion at once took possession of the whole party. They flung themselves on the

sumer to exaggerated susceptibility to suggestion. But there is this important difference. In hashish intoxication the suggestion is simply a natural sensory impression, received *spontaneously*, and greatly exaggerated. The hashish-taker sees a small sheet of water, and in his drug-induced dreams it becomes a magnificent river, a vast lake, or boundless ocean. He hears an Italian organ beneath his windows, and imagines himself listening to the orchestra at Bayreuth.

Dr. Barwise writes (*op. cit.*, p. 10), that when experimenting with the drug on himself, he imagined the slight noise made by someone in turning over the pages of a book to be a thunderstorm. Dr. Von Schrenk Notzing has written an exhaustive treatise on hashish, and he finds that some persons while under its influence are as susceptible to verbal suggestion as if they were hypnotized. One of the men experimented on was a medical student, who not only obeyed all the suggestions made to him while under the influence of the drug, but also carried out suggestions made the next day (post-narcotic suggestions), and that without having any recollection of the order. For example, he was told to return to Dr. Schrenk Notzing's house the following day, and to ask him for three cigarettes. This he did, and in the same awkward and shamefaced manner as often characterizes compliance with post-hypnotic suggestions ('Die Bedeutung narcotischer Mittel für den Hypnotismus,' p. 67).

In alcoholic and other forms of intoxication, there is commonly an exaggerated automatic action, as seen in gesture, speech, and general demeanour, with corresponding inhibition of the higher and controlling centres, and increased readiness to act upon suggestion; whether it be self-supplied by the senses, or from without, by the by-

new comer, and a tragedy would certainly have followed had not some students in another room heard the victim's cries of terror. They, of course, rushed in, and made a forcible rescue. The affair was hushed up, and the club dissolved; but some of those who took part in the episode, which in its weird horror reminds one of the situations of Théophile Gautier, are now respected members of the profession, and will remember the occurrence.

standers. It is known that epileptics are extremely susceptible to suggestion, and any action suggested to one immediately after an attack would probably be executed automatically, without volition, and without subsequent recollection of its performance. This point is noticed by Dr. Gowers, and is interesting, as these subjects are peculiarly susceptible to hypnotism, perhaps because their cerebral centres are abnormally easy to dissociate and throw out of gear.*

With our present knowledge, it seems impossible to explain certain phenomena connected with advanced hypnotism. Some of these, which have often been attributed to clairvoyance, are undoubtedly the result of exaggerated perception. The subject will, under the stimulation of suggestion, read figures or letters at an amazing distance, will distinguish persons by a sense of touch too delicate to exist when the other faculties are at work, will feel the apparently imperceptible currents of air set in motion by 'magnetic' passes, and will comprehend and act upon hints and whispers which are inaudible to the ordinary listener. *Why* should the hypnotized subject be deaf to all sounds except the voice of the operator, and hear and obey that voice, though it be but the faintest whisper, and the surrounding sounds a perfect babel? The waking of a tired mother at the feeblest cry of her infant, though loud noises are unnoticed by her, and that of Nelson's signal-lieutenant at the word 'Signal,' though the roaring of cannon had failed to arouse him, may afford an analogy, if not an explanation.

* According to Richet (*op. cit.*) the normal sleep of young children is almost somnambulic, and in support of this theory he instances the case of his little boy, aged 5, who remains profoundly asleep when his father goes in at night to caress him, but who murmurs a welcome and returns the embrace. The next morning the child is unconscious of what has passed. It must be the experience of all observers that not only in such a matter, but in other everyday occurrences, a child is frequently in a condition resembling hypnosis, and this perhaps explains the fact that children are such satisfactory subjects for hypnotic treatment. The balance of the faculties has not yet been attained, and thus readjustment is easily affected.

A peculiar species of phenomena is that in which a letter, or word, or object, is eliminated from the consciousness of the patient. For instance, A B is told that on awaking he is to write certain words, say 'Alexandra Palace,' without the letter *a*. He will do this, and in so rapid and business-like a manner that the observer (who had better try to do the like) must be convinced of the genuineness of the experiment. Or he is forbidden to use the pronoun *I*, when he will be at extraordinary pains to avoid the word, and will not once be betrayed into employing it, though, as in the case reported by Max Dessoir, he may use its equivalent in some foreign language. The subject may be wide awake and perfectly reasonable in all other respects, but this *idée fixe* is firmly implanted in his mind, though he is absolutely unaware of its presence. If shown his copy in which the letter *a* or the pronoun *I* is missing, he will see nothing wrong about it, and the delusion remains until he is told to return to his usual state, when the absurdity of the thing will be at once apparent, and he will perhaps deny having written the incorrect words or sentences.

Several varieties of aphasia may be functionally induced by suggestion. The subject may be rendered incapable of uttering a sound (complete motor aphasia), or can be made to reply to every question by a meaningless formula, as in some of the pathological cases cited by Trousseau and by Gowers. He may be conscious or unconscious of the absurdity, just as in the pathological entity, and the condition may be modified in various directions. He may, for instance, be unable to pronounce the letter *e*, but able to write it, or *vice versâ*. We know that aphasia may occur from functional causes, as from a strong emotion, when one is rendered speechless by terror, indignation, or overwhelming joy or surprise;* and the

* Dr. Ireland (*op. cit.*, p. 273) cites a case of sudden *gift* of speech under the influence of exciting emotion. A well-known merchant in London had a son about eight years of age who was perfectly dumb, so that all hope of his ever speaking had long been abandoned. The boy was intelligent and had no other infirmity. During a water party on the Thames the father fell overboard, and the hitherto dumb boy

induced aphasia of hypnotism seems to resemble this variety rather than that which sometimes occurs in the course of typhoid fever and from reflex disturbances. The subject is well worth the attention of physiologists, and its study may throw light on some morbid conditions connected with speech. The differentiation is very much finer than anything of this nature to be seen in disease, and requires correspondingly fine analysis. Dr. Gowers remarks on the deficiency of facts and the redundancy of theories connected with this subject Hypnotic experiments may help to increase the former and prove or disprove the latter.*

Violent emotion may cause other effects than transient loss of speech. Dr. Charcot† gives the case of an intelligent man, who, after a violent paroxysm of rage, lost the memory of visual impressions. Though he could see objects, they all appeared strange to him, and he could not recognise his friends, nor even his own face in the glass. Injury to certain parts of the brain, especially the lower parietal lobe, may induce this 'psychical' or 'mind' blindness, and this condition can be exactly simulated by suggesting it to a sufficiently sensitive hypnotized subject. The association between the visual centre and the higher intellectual centres in which *memory* resides is inhibited in both cases.‡

---

cried out: 'Oh, save him, save him!' From that moment he spoke nearly as well as his brothers, and afterwards became an active partner in his father's business.

* By hypnotic suggestion reading may be rendered impossible alexia). The subject may also be made incapable of writing (agraphia). and can even be prevented from expressing himself by signs (amimia). Sewing, drawing, and indeed every action, may be tabooed by the same means. (See 'Der Hypnotismus,' by Dr. A. Moll, p 92, Berlin, 1889.)

† Quoted in Landois and Stirling's 'Physiology.'

‡ Partial or complete loss or impairment of all the special senses may be induced in a similar way by suggestion; *e.g.*, the subject may be rendered unable to perceive the odour of violets, while noticing all other scents, or to see red, while other colours remain distinct. The hypothesis that certain cells of the cortical perceptive centres are differentiated in the process of evolution to react to the special stimulus of certain sounds, odours, or colours, and that these are inhibited, is a tempting one.

That suggestion acts by partially or wholly inhibiting the perceptive centres seems demonstrable; but how it does this cannot at present be explained. There is, of course, great scope for self-deception in hypnotic experiments; but if subjects of proved integrity are chosen (hysterical women and young boys are not so trustworthy as intelligent artisans), and if they are kept in ignorance of the phenomena which the operator desires to obtain, simulation need hardly be feared. Negative hallucination, as described on p. 289, is a complex condition, which I cannot explain, as some would do, by calling it mere clever acting. Sometimes, indeed, I suspect *unconscious* simulation on the part of the patient, as in the case of E. H——, who, when told not to see Dr. F——, carefully avoided looking in his direction, and refused to answer when he spoke to her, except once, when she looked puzzled, and answered him while looking towards me. She assured me that Dr. F—— was not in the room, but had been called away to see a patient; this I had suggested to her in the hypnotic sleep. On being told by me to see Dr. F——, she immediately looked at him, and expressed surprise at his sudden return. But in most cases the blotting out is complete, and the subject may even be pinched or pricked by the person designated as invisible without feeling anything, and the invisibility may be extended to any article which he (the subject) takes in his hand.

Suggestion alone is sufficient to explain the success of a vexatious experiment practised on a Parisian accountant, who was told that two and two make five, and acted upon this information with startling results next day while making up his accounts.

The induction by suggestion alone of pseudo-paralysis in a limb is a curious phenomenon. I can say to E. F——, whom I have frequently put into a state of advanced somnambulism, 'You cannot move that arm or that leg,' and so evoke the idea of powerlessness, that for a few minutes the limb remains motionless; then with a sensa-

tion as of 'pins and needles,' power comes back to it, and she can move it freely. Max Dessoir describes how he influenced a postman whom he could not hypnotize in any usual way. He told him to make the movements required in stamping letters, and when he had done this for some minutes, cried in an authoritative tone, 'Now you cannot stop doing that!' The idea was fixed in the man's mind, and, in fact, he could not leave off. During his performance of an act that with him had become automatic, the higher centres, being inactive, were easily inhibited, and the hypnotic condition was then induced by suggestion. I have frequently seen Dr. Arthur hynotize his patients by telling them to listen to his watch ticking and the sound will send them to sleep. I sometimes use this method in persons whose sight is weak or defective. At Nancy Bernheim has almost given up fixation of the eyes, and relies upon verbal suggestion alone. The patient, lying with closed eyes, hears the doctor's somniferous suggestions, and generally falls very quickly into the hypnotic sleep.

The case of Mrs. M——, a hospital nurse, is typical and interesting. She was first hypnotized by me in October, 1888, and since then I have hypnotized her frequently —perhaps two hundred times—generally to demonstrate various phenomena to medical friends. She is a person of little education, but has good natural ability, and is a clever nurse. I find her a somnambulist of an advanced type, with no memory on waking of what has occurred during the hypnotic sleep. As she was a good and willing subject, I used to get her to obey my suggestions post-hypnotically; but on one occasion she took offence at some remark of a bystander, and told me she would never again do anything of the kind. Henceforth her reply was always *No* when I asked her to do anything on waking, and such suggestions were never carried out. After some months, however, I persuaded her to withdraw her opposition, and she now again goes through the little tests which I propose. I find, as Binet and Féré have

observed in some of their cases, that this subject is quite unconscious of obeying any initiative except her own,* and invariably finds some reason for her conduct. For instance, she is told to move a lamp from one table to another, and if asked why she has done so, she replies that she thought it would look better in another place, or gives some such plausible excuse. No one could be more surprised than she is when told that she has simply obeyed an order. And as in dreams no commands given seem ridiculous, and hardly any are deemed impossible to fulfil, so it is with such 'advanced' hypnotic subjects. Nevertheless, Mrs. M——'s resistance to suggestion seems to show that some personal control is maintained, and her intelligent replies to questions demanding calculation and reasoning, such as, 'What is the best route to the city? How much time is required to get there?' imply some working of the higher faculties.

Dr. F——, a foreign physician of much experience, attempted in my presence to hypnotize this subject. Without being aware of it, she was protected by my having frequently told her, while she was in the hypnotic state, that she must allow no one except myself to send her to sleep. Dr. F——'s attempt to do so made her uncomfortable, but not at all sleepy, until I told her that she was to be influenced by him. My embargo thus removed, a few minutes sufficed to induce her usual state of profound somnambulism, in which she was anæsthetic and insensible to her surroundings. I now spoke to her, and she gave no reply, until Dr. F—— told her to do so, when she immediately answered my questions (*vide* p. 105, note).

There is another curious phenomenon obtainable with the above-mentioned subject, as well as with many other somnambulists — a compulsory automatic action brought about and maintained by suggestion *without* hypnotism.†

* Dr. Auguste Forel records, also, the same experience. 'Der Hypnotismus,' etc., p. 31, Stuttgart, 1889.

† Dr. A. Moll (*op. cit.*, pp. 192, 193) is of opinion that such obedience generally implies a slight degree of hypnosis, induced by the mere command in a susceptible subject.

Thus, I set Mrs. M to perform the action of 'twiddling her thumbs,' and tell her that she is unable to discontinue it. Though she laughs and protests, and is apparently in full possession of her faculties, she cannot leave off the movement until I give her permission to do so

Dr. Ireland, writing on the double brain (*op. cit.*), quotes largely from Dr. Edgar Bérillon's book.* This author certainly has the courage of his convictions, for after giving many examples of the double-brain action, he records experiments which satisfy him that through the agency of hypnotism we can induce this double action. For instance, he will speak into the right ear of a subject in a profound state of hypnosis, and describe to her an amusing scene at a theatre; then into the other ear he will pour some tragic tale. The right side of the face will express pleasurable feelings, whereas the left side will, at the same time, wear a look of grief or terror. Dr. Bérillon defies anyone in an ordinary state of health, or even in hysteria, thus to produce the simultaneous expression of a double set of emotions. He makes the following inductions: '1. That hypnotism can suppress the physical motor and sensory activity of one hemisphere of the brain. 2. That it can give to each hemisphere a different degree of activity 3. That the two hemispheres having an equal degree of activity, we can create for them at the same time manifestations varying in their seat, their nature, and their character.'

That a transference of functional activity from one side of the brain to the other may sometimes be effected by hypnotism seems to be shown by the case of Louis V—— (described on p. 81). This subject was easily hypnotized, and in the hypnotic state would lose the right hemiplegia from which he was suffering, and walk quite naturally. When he was hypnotized, both his eyes were shut, as in natural sleep; and if either of them was forcibly opened the corresponding side of his body be-

* 'Hypnotisme Expérimental, la Dualité Cérébrale, et l'Indépendence fonctionnel des deux Hémisphères Cérébraux,' Paris, 1884.

came cataleptic, while if both were opened the whole body took on this condition. If the right eye was opened while he was talking or reciting in the hypnotic state, he not only became cataleptic on the right side, but also aphasic, and the physician in attendance, Dr. Jules Voisin, came to the conclusion that this action produced an inhibitory effect on the left hemisphere, and consequently and inclusively on the normal centre of speech. When the eye was again closed, he took up his speaking or reciting where he had left off. The opening of his left eye in his 'first state' had no effect on his speech; but in his 'second state,' during which his words and mode of expression were extremely childish, opening the left eye stopped speech, whereas opening the right eye produced no effect. This, according to Dr. Voisin's theory, supported to a certain extent by Drs. Burot and Bourru, showed that the speech centre had shifted sides. In his 'first state' Louis V — used chiefly the left hemisphere of his brain, and in his 'second state' the right hemisphere, which being less educated than the other, accounted for the imperfect character of the speech produced during its preponderance.

Dr. W. Ireland,* in his interesting volume of essays dealing with abnormal mental conditions, gives some curious examples of double consciousness occurring in the course of disease and from poisoning. He refers to hashish-eaters being sometimes conscious of a double individuality, and quotes the well-known case of a drunken porter who, when sober, used entirely to forget where he had left his parcels, and remembered it only when he was again intoxicated; that is, when the brain was again in the same specific state which it had been in when he committed the action Dr. Ireland also mentions the sensation of double personality sometimes experienced by a person suffering from severe illness, who has appeared to himself as two different individuals, one of whom suffered, while the other looked on and pitied him.

* 'The Blot on the Brain,' Edinburgh, 1885.

Draper, in his work on Physiology, refers to this point, and remarks that one never experiences three consecutive trains of thought, for the very good reason that our brains possess only two hemispheres. He considers that the two sides may sometimes act independently, and even inharmoniously, and thinks that double cerebration may be thus explained Thus we may follow out a train of thought while giving a fair amount of attention to an address or sermon, or we may even be able, like Mr. Barkworth, of the Society for Psychical Research, to carry on an ordinary conversation while adding up a double column of figures. Of course the theory of a double action of the cerebral hemispheres need not be invoked to explain such everyday occurrences as being able to play the violin or piano whilst carrying on a conversation Practised musicians can, we know, play difficult music while engaged in conversation, just as artists are able to talk to their sitters while painting them. But we need not invoke the theory of dual brain action to explain this, any more than we require it to explain how it is a sempstress can ply her needle and sing the while. In these cases continued practice has made the special movements of eye and hand automatic, and there is no question of employing the functions of higher cerebration. When the artist comes to a difficult passage or piece of work, he is seen to become silent and to devote all his faculties to its elaboration. The associated group of centres require the control and leadership of the highest nervous arrangements.

The brain is, of course, a double organ, anatomically and physiologically, and though in normal life the two hemispheres are so functionally associated that they act as one, such cases as those I have cited seem to show what most observers are agreed in concluding, that under certain conditions the partnership may be dissolved, and one side may act independently of the other. In some cases of insanity the patient has been observed to ask questions and reply to them, as in two different capacities,

and Dr. Ireland supposes that in such instances the two hemispheres are acting alternately. He suggests that the existence of such conditions may prove a key to the explanation of many cases of 'spirit-possession' and hallucination.

The left hemisphere is much more used than the right, and in general is proportionately more developed, though in left-handed persons the reverse is said to be the case. But although we may ordinarily use only one-half of our brain for certain actions, we can sometimes, in case of necessity, educate the neglected half to act when the other is injured. We may thus explain those curious instances in which, after an illness, previous education is forgotten, and the patient has laboriously to learn everything over again—to re-educate his brain, or rather to educate that portion of it which hitherto has been comparatively unused. Hypnotic suggestion, circumspectly used, might doubtless afford valuable assistance in such brain education.

The dissociation of the two sides of the brain, and the transference of preponderating influence from one to the other, certainly seems to afford a plausible explanation of many of the phenomena of advanced hypnotism. But it is not so easy to attribute to this dissociation and transference the therapeutic and other effects observable in the minor degrees of hypnotic influence with which the practitioners of the Nancy school are satisfied. Physiological theories change as knowledge increases, and when they are proved to be erroneous they are apt to drag down in their fall the practice which has been founded upon them. Therefore, while avoiding mere empiricism, it is safe not to depend too much on any as yet unverified theory of hypnotic suggestion. Within the next few years a flood of light will assuredly be thrown upon this subject

CHAPTER VII.

Reality of Hypnotic Phenomena —Simulation Tests.— Practical Directions for Medical Hypnotism —Absence of Personal Element in the Nancy Treatment —Method of Fascination.— Voisin's success in Lunacy.— Forel's Opinion of the Treatment —Hypnotism best applied by the Family Physician.—Some Diseased Conditions benefited by Hypnotism Medical Education essential for its successful Practice. —Aids to Hypnotism.

To the believer in the scientific certainty and therapeutic value of hypnotic suggestion, it is somewhat trying to be told, as he sometimes is, that the whole thing rests upon a foundation of error or misrepresentation. Sceptics, we find, divide themselves naturally into two classes: those who entirely deny the existence of the hypnotic state, or affirm that its production is so rare as to be hardly worth taking into account; and those who, while they acknowledge the reality of the psychical condition, refuse to believe in its utility as a remedial agent.

The former are a diminishing quantity, and must soon succumb under the accumulating evidence adduced by such scientists as Charcot, Richet, Hack Tuke, Moll, Heidenhain, Krafft-Ebing, Preyer, Beaunis, Tamburini, Lombroso, Myers, etc.

The attitude of the latter class is comprehensible and, indeed, natural; and it is right that the guardians of the public health should exercise a healthy scepticism and demand convincing evidence before approving a treatment of this kind, or admitting it into their practice.

The work of such practical observers and clinicians as Bernheim and Liébeault of Nancy, Voisin, Bérillon, Dumontpallier of Paris, Von Schrenk-Notzing of Munich,

Van Renterghem and Van Eeden of Amsterdam, Albert Moll of Berlin, Wetterstrand of Stockholm, Cruise of Dublin, etc., will soon supply the necessary therapeutic testimony if, indeed, it has not already done so and we shall see hypnotic suggestion take its place in the armamentarium of the medical practitioner in spite of the difficulties thrown in its way by charlatanism and impostors past and present.

The *argumentum ad hominem* is, as Richet* tells us, undoubtedly the best to use; and as medical men are often excellent subjects, it has sometimes been my good fortune to convince a friend, and at the same time benefit a patient, by putting a member of our profession into one or other stage of the hypnotic state.

That simulation and imposture are frequently practised at public 'entertainments,' I am not concerned to deny, though it is easier to procure a genuinely susceptible subject than to take the trouble of training a confederate. Public performers are generally careful to have with them some subjects whom they have frequently hypnotized, so as to be prepared for contingencies.

I readily admit that the desire to please and to appear interesting will, especially among hospital patients, lead to a good deal of simulation, intentional or unintentional. But in private practice and among intelligent patients, simulation is a bugbear of which we need take little account. With experience, too, comes the ability to detect deception, and the practised hypnotist is on the watch for it,† and is very acute in perceiving its slightest tokens. And, in fact, the patient is, as a rule, *more* rather than *less* influenced than he supposes. He will frequently say that he has in no way lost control over his thoughts

* 'L'Homme et l'Intelligence.'

† Charcot has devised an ingenious instrument, by means of which the tracings given by the involuntary movements of the arm in simulated catalepsy can be compared with the very regular and even tracing made on a revolving cylinder when the subject is in the genuine hypnotic state. This contrivance may prove useful in the detection of fraud. (*Vide* 'Diseases of the Nervous System,' vol. iii.)

and actions, and will be surprised to find that he cannot open his eyes, or that his arm has become immovable at the operator's bidding. The very way in which he tries to open his eyes is characteristic of an altered condition. Instead of using the levator palpebrarum, he wrinkles his brows and energetically employs the frontalis. If at last he succeeds, it is only after great exertion, and the eyelid opens in a peculiarly slow and heavy manner. In the same way, if, after being a little more influenced, he is told that he cannot bend or otherwise move his arm, he will make violent efforts to do so with the wrong set of muscles, and will perhaps at last, with difficulty, effect a partial and jerky movement in the desired direction.

It is but fair to ask one's self, Why should a patient make pretence about hypnotism any more than about other medical procedures? If we give a prescription to remove neuralgia or rheumatic pains, we do not accuse our patient of simulation when he returns and tells us that the *mistura ferri* or *sodæ salicylas* has relieved or cured him, but rather attribute this good result to our remedy, and congratulate ourselves on its success. The therapeutic test is a perfectly fair and correct one, and as it is neither necessary nor desirable to produce the physiological action of drugs when we give them as curative agents, so it is needless to evoke or expect the phenomena of *le grand hypnotisme* in cases where we use suggestion as a remedy. A knowledge of the physiological action of a drug is necessary, as, without such knowledge, we should be using it empirically; and a familiarity with the phenomena of advanced hypnotism furnishes us with a key to the action of suggestion, as in the phenomena of poisons we find one to the action of drugs.

The method I usually adopt to produce the hypnotic state is that practised by Liébeault, and is undoubtedly the easiest and most rapid. The treatment is psychical, and attention to detail is absolutely necessary to success. The existence in the patient of any opposing idea, as of fear—or of a spirit of ridicule, or of decided hostility—or

a consciousness of bodily discomfort, will render futile all attempts to hypnotize him—at least, at the first trial. His mind must be at rest, his position comfortable, and the environment should be such as would favour the advent of ordinary sleep. It is sometimes helpful to hypnotize one or two patients in the presence of a newcomer, so as to arouse his imitative faculty and dissipate any nervous feeling he may have. And some friend should always be present during the entire operation.

The patient reclines on a couch or in an easy-chair, and I stand or sit beside him, and hold the first two fingers of one hand at a distance of about twelve inches from his eyes, at such an angle that his gaze shall be directed upwards in a strained manner. I direct him to look steadily at the tips of those fingers, and to make his mind as nearly blank as possible. After he has stared fixedly for about half a minute, his expression will undergo a change—a far-away look coming into his face. His pupils will contract and dilate several times, and his eyelids will twitch spasmodically. These signs indicate a commencing induction of the desired psychical condition. If the eyelids do not close spontaneously, I shut them gently, and the progress of sleep is generally helped by verbal suggestions, such as: 'Your eyes are becoming heavy; they are getting more and more heavy; my fingers seem indistinct to you' (this when the pupils are observed to dilate or contract); 'a numbness is stealing over your limbs; you will be fast asleep in a few minutes; now sleep.' It is sometimes an assistance to lay one's hand gently, but firmly on the forehead.

In ordinary cases, the operator will find that the hypnotic condition has by this method been induced in from one to three minutes, and he may now ascertain what degree has been arrived at. This depends chiefly, if not entirely, on the temperament of the subject, and I consider it impossible to foretell with any certainty what stage of hypnotism will be reached by any person who has never yet been hypnotized. I do not, as a rule, make

many suggestions at a first sitting, but I gently rub the epigastrium and suggest a feeling of warmth in that part of the body, a general sensation of comfort and well-being and an agreeable awaking. After a few minutes I tell the patient that he has rested long enough, and that he can open his eyes and arouse himself. He generally obeys at once, and says that he feels refreshed and comfortable. I ask him what he remembers of his few minutes' rest, and he generally tells me that he has heard every word I said to him, and also any other sound that there may have been, but he adds that he felt a great disinclination to move or speak until he was told to open his eyes. He finds the feeling of warmth, induced by suggestion and by gentle friction of the abdomen, very marked, and this sensation will probably continue for several hours. He is perfectly awake and quite himself before he leaves the house.

The feeling of warmth is an important symptom, and Dr. Liébeault is invariably confident of doing good to the patient in whom he can produce it, if the malady is a tractable one. Magnetizers naturally attribute this sensation to the passage of the magnetic fluid from the operator to his patient, but it seems to arise from stimulation by suggestion of the vaso-motor centres, and from a transmission to the part of increased nerve and blood supply. A sensation of cold can often be substituted by suggestion for one of warmth, as I have seen in cases of gastric ulcer and of congestive headache; in such a case the physiological process is perhaps reversed. Suggestion without contact would probably suffice to produce this local action; and there is no doubt that friction with a book or other small article has generally the same effect as hand-friction.

On a second visit, the patient will usually enter the hypnotic state more rapidly, and its degree will very likely be found intensified. Therapeutic suggestions may now be made, or, if it is desired, the extent of hypnotic influence may be tested. This is generally done by first

raising the arm at an angle to the body, and telling the patient to keep it there. If the cataleptic state has been reached, it becomes stiff and rigid in that position, and will remain in it for an indefinite time, corresponding to the subject's muscular development. If the arm shows no tendency to drop, a rotary motion may be given to it, and the patient told to continue this movement. If the third degree is reached, he will do so until he is ordered to desist. The tests of somnambulism may now be applied. The first of these is to speak to the patient and get him to reply. Another person is then told to address him, and if the questions he may put fail to elicit any response, it will be evident that the subject is *en rapport* with the operator only, and other tests may be used, such as tickling the nostrils with a feather to demonstrate that anæsthesia exists, and prove the depth of somnambulism. Finally, if all these tests point to decided somnambulism, post-hypnotic suggestions may be made. The patient may, for instance, be told to sit on a certain chair, to open some book at a particular page, or to write a sentence leaving out a specified letter. Negative hallucinations, delusions of the senses, etc., can also be suggested. I need hardly insist that such tests and experiments are quite inadmissible without the previous consent of the patient and the presence of his friends.

The patients who attend Dr. Liébeault's clinique are desirous and eager for the treatment, and he and Professsor Bernheim have the advantage of possessing their faith and co-operation. It is, I believe, essential to have the patient's confidence, and the time spent in acquiring this previous to commencing operations is well employed. Failure in obtaining the patient's good-will may not only prevent success, but may even cause the process to produce an aggravation of the symptoms. I have had the opportunity of noticing this on several occasions, and now never attempt to hypnotize without having the free consent of the person most interested. Neglect of this precaution led to some trouble in one of my early cases.

A physician asked me to hypnotize one of his patients, a young lady suffering from chorea. She expressed a dislike to the treatment, and only gave an unwilling consent to it being tried after a great deal of argument. She was susceptible to a certain extent, but her sleep was irregular in character and very disturbed. When she awoke the choreic movements were decidedly worse; on each subsequent occasion a similar process had to be gone through, and no good result ever followed. When left alone she got well without treatment in a few weeks, and then took her revenge on me and hypnotism by writing letters about it to the papers! In these she stated that she had struggled with might and main, and with partial success, to retain consciousness, as she disliked the process and did not believe in its utility; thus showing that the very first conditions of success were wanting in her case. Of course, I refer to the Nancy method of hypnotizing by 'persuasion,' as it is well called. There is another method employed by many of the platform operators and by some medical men under special circumstances—hypnotism by fright or compulsion. The state thus induced is akin to that produced in animals and in man by sudden fright or shock; and it resembles hypnosis and may pass into it. Preyer calls this state cataplexy. Charcot's cataleptic state, produced by the sound of a gong or by the flashing of a brilliant light, corresponds to this state, and resembles the condition of a person surprised by a train at a railway crossing, or transfixed with terror by an appalling sight, *e.g.*, the Head of Medusa in the shield of Perseus.*

Hypnotism, as I have already said, is merely a psychical preparation or vehicle for suggestion, and this condition being induced, it remains for the treatment to be applied. The suggestions vary, of course, with the nature of the

* Livingstone has recorded his sensations when in the clutches of the lion which lacerated his arm and was very near killing him. He says he felt no pain and was conscious of no fear while his eyes were riveted on those of the enraged animal. In fact, the emotional centres were inhibited and he was practically hypnotized.

malady to be treated. If headache is the chief symptom, the head is gently rubbed, while the disappearance of the pain and its non-reappearance are suggested. If sciatica, the course of the sciatic nerve is rubbed, and the substitution of warmth for pain is suggested. If insomnia, the patient is told to feel sleepy at a certain time, and to sleep steadily through the night. If constipation, a motion is suggested at a specified hour—for instance, after breakfast. In treating rheumatic affections, the parts are well rubbed and the joints and muscles exercised by movements. In neurasthenia and spinal irritation, the spine is rubbed and kneaded. In cases of amenorrhea, the advent of the period is suggested at the time when, by inquiry, it is found to be due.

In moral cases, such as dipsomania, a dislike of stimulants and a freedom from craving or discomfort is suggested, as also are self-control and a desire for cure. The training and tact of the physician find full scope in the application of suitable suggestions, and also in the recognition of the amenability of a case to this treatment.

The results are often more pronounced and more rapid than in most lines of treatment, and a patient may awake relieved or cured of a long-standing pain or loss of function; but it is well that neither patient nor physician should expect too much, and marvellous cures are apt to be short-lived. There should, however, be a steady improvement from day to day, and if, after a few trials, no change is observable, I generally give up the case, as being unsuited for the treatment. Dr. Liébeault allows only a few minutes for each case, but in many instances it seems to me desirable to let the patient rest for twenty minutes or longer, for we may well suppose that during that period suggestions are working under a favourable condition of the nervous system.* The treatment should be repeated

* Prof. Wood, of Philadelphia, writing to *The Lancet*, Jan. 11th, 1890, on hypnotic suggestion, which he has recently studied in Paris, and has introduced into his hospital practice, seems to consider that the hypnotic sleep alone is frequently sufficient to promote cure, and

at intervals of not more than two or three days; otherwise incipient improvement may be checked by a fresh relapse.

I find improvement progressive, and cure permanent when once achieved. But in many patients there is a tendency to give up when a certain amount of progress has been made; and this tendency should be strenuously combated. In moral cases, it is absolutely necessary to have the patient under trustworthy observation, so as to guard against deception and relapse. I now refuse to treat such cases unless the friends are able to give proper supervision; and even after the cure appears complete, the patient, so I consider, should be told to report himself at regular intervals for at least a year, for repetition and reinforcement of the suggestion.

My practice is to make three or four attempts to hypnotize, and if no effect is produced I feel that the subject is not susceptible. In this respect I confess I lack the confidence and perseverance of Dr. Moll, who seems to think that everyone can be hypnotized, by one method or another, in course of time. He relates how he tried one patient forty times! Dr. Milne Bramwell reports cases in which he has succeeded in inducing somnambulism after the patient has proved absolutely insusceptible fifty, sixty, and even seventy times. An experience which speaks equally for the faith and pertinacity of patient and physician. I have occasionally, in special cases, made five or six attempts, but so far I have almost invariably found that if no effect is produced at the

---

to think that Bernheim is wrong in attributing everything to 'suggestion.' I entirely agree with Dr. Wood that in certain cases of hysteria and nervous exhaustion and irritability the physiological rest enjoyed during hypnosis is a powerful and, perhaps, sufficient factor in the cure; but it is impossible, even in these cases, to eliminate curative suggestion, for where it is not expressed by the physician it is understood and supplied by auto-suggestion by the patient. Dr. Wood's remark that the atmosphere of the Nancy and Paris hospitals is 'heavy with faith' applies, fortunately, to all institutions where cure-work is carried on. In London, at present, we have not the advantage of this meteorological condition, but the results are sufficiently satisfactory in suitable cases.

third sitting, it is useless making further efforts—at least for some time to come. It is quite probable that circumstances may change, and subsequent attempts be successful I know one lady who has suffered intolerable pain from occipital neuralgia for six years, and who consulted me about two years ago with a view to trying hypnotism.

I tried six or seven times to hypnotize her, but was unsuccessful. I then advised her to put herself under Dr. Auguste Voisin, of Paris. He endeavoured to hypnotize her on thirty-five occasions, but failed, though he employed chloroform as an auxiliary. On her return to England I again made some futile attempts, and then sent her to Dr. Milne Bramwell, of Goole. He and his partner tried about 150 times, and at length succeeded in inducing partial catalepsy and sensation of numbness in one arm. But the patient could always open the eyes, and the pain was little, if at all, relieved. She writes to me that she has now been operated upon about 210 times, and expresses her intention of continuing the treatment, as it seems to offer more chance of relief than anything else she has tried. The lady is remarkably bright and intelligent, and one can only suppose that the intense and long-continued pain has made it impossible for her to attain the necessary abstraction of thought.

Dr. Bramwell mentions one case in which he was successful in hypnotizing a patient after having failed to influence her in sixty-five previous attempts. The patience of both parties was rewarded by the lady being very soon cured by hypnotic suggestion of pruritis vulvæ, which had defied treatment for several years.*

One frequently finds the degree of hypnotic effect varies. For instance, I hypnotized Mr. R—— in November, 1888, and noticed that he fell into the fourth stage. He was suffering from chronic bronchitis, and was in a low, depressed state of vitality generally. Subsequently I could never induce more than the second degree, for as his health improved he became less susceptible.

* *British Medical Journal*, Feb. 28, 1891.

As regards personal qualification, I should say that tact and confidence are the only requirements. Different patients require to be approached in different ways, and the somewhat imperious tone which is necessary in some cases would arouse fatal antagonism in others.

The education and training of a medical man naturally tend to the development of these qualities, and from my experience I believe that any medical man can, with a little practice, succeed in hypnotizing the majority of patients. Anyone can hypnotize some people, and there are others whom, practically, no one can influence. Between these extremes lies a third and comparatively small class, with whom it requires experience and practice to succeed, and it is the management of these cases which requires most time and patience. Doctors who have known nothing of hypnotism, except that they have seen me hypnotize two or three patients, have frequently gone home and at once been able to hypnotize their wives, children, and servants, and have only been stopped in their run of success by meeting a case altogether insusceptible or requiring very careful management. Dr. Bernheim in his Hospital Clinique, claims over ninety per cent. of successes, and four-fifths of the patients fall into profound sleep or somnambulism, whereas in his private practice this is altered in a remarkable degree, for though nearly the same percentage are influenced, only one-fifth or one-sixth fall into profound sleep without recollection on waking. The French seem slightly more susceptible than other nationalities, but Forel, at Zurich, Ladame, at Geneva, Moll, at Berlin, Van Eeden and Van Renterghem, at Amsterdam, Wetterstrand, at Stockholm, Tokarsky, at Moscow, and other practitioners all over the world obtain nearly as good results.*

Perhaps the most successful hypnotic clinique in existence is that of Dr. Wetterstrand, of Stockholm. Dr.

* Cory says ('Hypnotism and Mesmerism,' Boston, 1888) that he has never succeeded in hypnotizing a Chinese, though he has experimented on several. The Orientals I have treated have mostly been good subjects.

Forel, of Zurich, who has visited Stockholm, has described to me his method of procedure and has published an account of what he saw in a recent work.*

His two large reception rooms are luxuriously furnished, and in them are a number of comfortable arm-chairs and sofas. From nine till one daily patients crowd in, and each one in turn is carefully examined by Dr. Wetterstrand. Only such cases as he considers suited are selected for the treatment, and the others are sent away with ordinary prescriptions and directions. Those selected for hypnotic treatment are admitted into the reception rooms and told to rest quietly and watch the procedure on the other patients. All around him the visitor sees other patients comfortably reclining in different stages of hypnotic sleep, and the whole atmosphere of the place is full of drowsy associations and suggestions of cure. When Dr. Wetterstrand comes to him he is already half asleep and his mind is fully prepared to act upon the suggestions made to him. Ordinary suggestions, such as tend to deepen the sleep and produce feelings of general rest and comfort, are made aloud for everyone to hear, but the particular suggestions applicable to each individual case are given in a whisper by the doctor speaking into the patient's ear. It will be remarked that every step in the method tends to impress the imagination. The preliminary examination which the patient anxiously undergoes in the hope that his case will be found suitable for the treatment; the admission of the selected cases into the inner rooms, about which there is a certain air of somnolency and expectation; the vision of other persons in different stages of sleep—all excite the faculty of imitation and the desire to sleep to the greatest degree possible. After so much trouble and such careful selection the new-comer would indeed be ungrateful for opportunities and undeserving of cure if he did not enter into the spirit of the place and prove amenable to hypnotism and impressionable to suggestion. Small wonder is it, therefore, that

* 'Des Hypnotismus seine psychophysiologische,' etc.

Dr. Wetterstrand has treated over 3,000 patients with such success that he finds only five per cent. are uninfluenced by hypnotism.* Dr. Berillon adopts a very similar method in his clinique in Paris, and he rarely attempts to hypnotize a patient on his first visit or until he has been prepared for it by seeing other persons operated on. He, therefore, also generally succeeds in influencing his patients. Drs. Van Renterghem and Van Eeden, at Amsterdam, pursue a somewhat similar course and are equally successful. No physician adopting a psychical method of treatment can afford to ignore any legitimate means of influencing a patient's imagination. And the best way to attain this end, is the assumption and maintenance of a firm and yet sympathetic demeanour. I am led, more especially, to thus enter into minutiæ by having observed the something like contempt some of the medical men I have met have expressed for what I may call the technique of suggestive treatment. I have seen a hospital physician, who believes in hypnotism, fail over and over again with his hospital patients because he has ignored the preliminary step of gaining their confidence and allaying their fears. To enter a ward surrounded with students and to pick out a trembling woman and tell her, without the least preparation, that she is to be hypnotized and go to sleep, is to arouse all kinds of opposing emotions in her mind, and renders hypnotism, at any rate by the Nancy method, impossible. The same woman, if approached gently, and shown other persons put to sleep and awakened, would probably prove an excellent subject, and might perhaps be cured by the treatment. Drs. Van Renterghem and Van Eeden always impress upon their patients that the more or less powerless condition to which hypnotism will for a short time reduce them is for a definite object, and that object

* In a hundred cases Wetterstrand finds the following proportions :

5·43	% are uninfluenced.
7·24	% feel drowsy.
52·49	% are unable to open the eyes.
34·84	% are somnambulic.

attained, there will be no more after-effect from hypnotism than from any other medical procedure, that there is no weakening of the will, and that the induction of hypnosis entirely depends upon their volition and co-operation, and cannot be achieved without them. The patient's attitude should somewhat resemble that of a passenger who gets into a cab in order to go to a certain place. Having secured a decent conveyance and a respectable driver, he gives himself up to rest in the confident expectation of arriving safely at his destination. If, instead of sitting still and trusting to the coachman, he shouts out contradictory orders and, in the fear of being taken out of his way, even pulls at the reins, it is probable that his journey will be somewhat prolonged. Many persons can never be hypnotized, because they lack the power of composing their minds and fixing their attention for two minutes at a time.

During 1890 I treated 118 patients by hypnotic suggestion, of whom fifty-nine were men, fifty were women, and nine were children between six and fourteen.

Of the men I found ten were uninfluenced after repeated trials, and of the women twelve were insusceptible. Only one of the children proved insusceptible. As regards degree of influence: seven became deeply somnambulic—three women, two men, and two children. Thirty-three exhibited the cataleptic phenomena. The remaining fifty-five patients were influenced to a degree short of catalepsy, and many of them experienced only a slight torpor or heaviness of the eyes. They all, however, felt the glow of reflex warmth in response to suggestion, which is so important a characteristic of the hypnotic state.

Of the thirty-three patients on whom I tried the process in vain, five were absolutely insane and four were suffering from hypochondriasis almost amounting to insanity.

Of the remainder some were scatterbrained, and I could not get them to fix their attention, some were contradictious and would not remain passive, while some seemed to be over-anxious and too analytical. Two or three were so dull and heavy that they fell into natural sleep of

a profound lethargic character, in which they were insusceptible to suggestion.

But in a few cases there seemed to be no reason whatever why the patient should not be a good subject, and it is quite possible that on another occasion, or under a different operator,* they could be hypnotized.

The accompanying table will explain the ailments for which these ninety-five hypnotized patients were treated and the results of the treatment:

NUMBER OF CASES.	DISEASE.	CURED.	BENEFITED.	UNCHANGED.
8	Chronic alcoholism	4	1†	3‡
1	Tobacco habit	1	—	—
2	Morbid delusions	1	1	
7	Hypochondriasis	1	3	3
4	Bad habits	2	2§	—
1	Melancholia		—	1
8	Neurasthenia	3	4	1
5	Insomnia	3	2	—
1	Morbid blushing		—	1
2	Megrim	1	1	
9	Various chronic neuralgias	4	3	2
2	Epilepsy	—	1	1
4	Functional paralysis	2	1	1
1	Hystero-epilepsy	1	—	—
3	Writer's cramp	1	1	1
2	Stammering	—	2	—
2	General chorea	—	—	2
6	Dyspepsia of various kinds	4	2	—
4	Irregularities of the bowels	3	1	—
3	Nocturnal enuresis	2	—	1
8	Menstrual irregularities	5	3	—
3	Chronic rheumatism	2	1	—
2	Disseminated sclerosis	—	—	2
2	Locomotor ataxy	—	2	
1	Cerebral tumour		—	1
2	Post apoplectic paralysis	—	2	—
2	Infantile paralysis	—	2	—
95				

* I have twice succeeded in hypnotizing patients after other medical men of experience had failed, and, on the other hand, two or three persons whom I could not influence have been hypnotized by other operators. But, as a rule, I have found that the person who cannot be hypnotized by one physician is not likely to prove more susceptible with another—the conditions being similar in both cases.

† The attacks are rarer and less severe.

‡ There was a temporary improvement in all these cases, followed by relapse.

§ One relapsed after twelve months.

I have not included in the foregoing list a considerable number of cases where I have used hypnotism simply as a palliative in ordinary general practice and in the course of acute disease: *e.g.*, in tickling laryngeal cough occurring in the course of pneumonia, colicky pain in typhoid, restlessness in endocarditis. Neither have I included cases in which I was only consulted once. Hypnotic treatment being comparatively novel, a number of persons come to the hypnotist more out of curiosity than for any wish to be cured, and others come with most exaggerated expectations. As an example of the latter class I may cite the case of an elderly gentleman who sent for me and asked me to hypnotize him in order that I might disperse an abscess, and so cheat the surgeon's knife. On examination I found a large abscess in the perinæum almost ripe for lancing. I succeeded, with some difficulty, in inducing a gentle and pleasant languor, in which I left him, after suggesting diminution of pain and a good night's sleep. These suggestions were fairly well realized, but the patient was sadly disappointed, because the surgeon had to open the abscess on the day following. A medical man once called upon me with even greater expectations. He was on his way to his dentist to have a troublesome molar extracted, and he looked in to see if I could not anæsthetize by hypnotism and thus render gas unnecessary. Needless to say I did not succeed in gratifying him, and I am afraid he left me thinking very poorly of an agent which could not be evoked in its most advanced degree at will.

Two or three ladies have called upon me and told me that their husbands were in the habit of drinking too much wine, and have asked me to treat them without their knowing anything about it. They expressed much disappointment when I had to tell them that the patient's wish to be cured was an essential preliminary in such cases.

In my own practice, during the years 1888-9, I have found the following results:

Somnambulists	32
Profound sleepers . . .	35
Light sleepers, or somnolent .	88
Doubtful	9
Uninfluenced	42
Number of persons operated on .	206

All classes of society are represented in this table, which does not profess to be anything but a record of a somewhat limited personal experience. The English uneducated classes have an invincible distrust to novelty in treatment, and to this I attribute my almost complete want of success hitherto in public institutions. On most occasions, when I have talked to the patient and got him to come to my house, he has been easily hypnotized, and I have no doubt but that when hypnotism becomes a recognised treatment in hospitals, English experience will not differ widely from that of Nancy. One of the somnambulists is a doctor in large general practice. My oldest patient was a gentleman of eighty-two, who fell into the second stage, and was cured in a few days of an attack of gouty sciatica, which had always previously lasted for weeks. He has been my patient for seven or eight years, so perhaps the therapeutic test is admissible here. My youngest patient was a child of five, who fell into profound sleep at once. Most of the somnambulists are women of neuropathic predisposition, but very few of them had ever had any attack of ordinary hysteria, and many of them are hard-working clerks or good household managers. Five of these, however, are boys of ordinary types apparently, and three are adult men of perhaps more than average ability and intelligence. The profound sleepers were generally epileptics or persons of phlegmatic temperament. I have never seen any untoward symptoms arise from medical hypnotism, and I can hardly conceive such a thing possible with ordinary care and gentleness.

I am quite certain that the patient has in no way felt subsequently influenced by the operation, except in the direction suggested by me and wished for by himself. The Nancy treatment is essentially impersonal, and it is the patient who hypnotizes himself under the suggestion and guidance of the physician, and the curative effect gained is the result of concentration and direction of the patient's own faculties and functions. The somnambulist might, I believe, be made, by frequent induction of hypnosis, to do foolish, and even criminal acts, but no suggestion made to an ordinary subject will be executed unless it be in accordance with his wish. For instance it would be useless to suggest to a stanch teetotaler, in any stage of hypnosis short of somnambulism, that he should drink brandy. The suggestion would defeat its end by arousing indignation and disgust. Such a suggestion, opposed to his moral sense, made to a somnambulist, might be obeyed even the first time, but it would probably require frequent repetition to break down resistance and overcome his individuality.

If the method described for producing hypnosis fails, or loses its effect, I use a modification. Instead of the fingers the patient may be told to look at a bright metal disc or coin, or the skin of the forehead may be gently rubbed while the gaze is fixed on a distant object. Sometimes verbal suggestion tends to keep a patient awake instead of inducing sleep, and in many instances methods will have to be devised to meet different idiosyncrasies.

The method of fascination is, I consider, inapplicable and objectionable in ordinary medical practice, as it introduces too much personal element into the operation, and induces a state of complete automatism, in which the subject's *ego*, or personality, is entirely suppressed (Binet and Féré). It is practised by looking fixedly and pertinaciously into the subject's eyes at the distance of a few inches, and at the same time holding the hands. In a few minutes all expression goes out of the face, and the subject sees nothing but the operator's eyes, which shine

with intense brilliancy, and to which he is attracted as a needle to a magnet.

Auguste Voisin adopts this plan with insane patients, and sometimes succeeds when he has failed by all other methods. In such cases, of course, any means are permissible, as by hypnotism and suggestion he has succeeded in cutting short attacks of mania, and curing various intractable mental conditions.

There are objections to this method also from the operator's point of view. If the subject, or patient, is refractory and the operator tired, it may happen that the natural sequence of events is reversed and the operator becomes hypnotized instead of the patient. Braid mentions several cases where this took place, and it has several times happened to Liébeault. On one of the few occasions on which I employed this method I nearly succumbed to the continued strain and became conscious of a curious inhibitory influence stealing over the muscles around my mouth.* Fortunately, the patient just then closed her eyes and passed into a profound sleep. The

* The mouth is generally acknowledged to be the most expressive feature, and its movements are less under the control of the highest centres than those of other parts. The man who can face an enemy without flinching is often unable to control the twitching of his mouth under circumstances of emotion. It seems to be especially subject to inhibitory influence, and a drawing in the muscles about the mouth often precedes any other symptom in the coming on of hypnosis. A middle-aged physician consulted me for sleeplessness in 1889, and asked me to hypnotize him. I found him susceptible to about the second degree, and having made some suggestions I left him alone for a quarter of an hour. On my return his eyes were open, and I spoke to him; but he made no reply, and pointed to his mouth. In a few moments I understood what he meant, and proceeded to apply friction to it and told him to open it. He told me that he had not lost consciousness, and had opened his eyes at the expiration of the ten minutes I had told him to keep them closed; but he found he could not open his mouth, and there he had to lie speechless until I appeared and unlocked it. I had made no such suggestion, and can only explain the occurrence by supposing that I had unwittingly passed my fingers over his mouth in such a way as to suggest to him the idea that it was closed, which idea was carried into execution. The gentleman, who is an M.D. of London, was in a nervous state from want of sleep, and hypnotism would probably have done him good, but after this experience nothing would induce him to submit to the process again.

method by fascination is also extremely fatiguing, and where prolonged staring at an object is necessary, it is best to employ Luy's rotating mirror.

Moll points out that the disagreeable effects sometimes seen in the first induction of hypnosis by other means than simple suggestion are due, not to the treatment, but to the patient's fears, and he says he has noticed similar symptoms accompanying the use of electrical appliances in nervous persons. I once hypnotized a hospital patient who became slightly convulsed and then passed into a very hysterical state. She confessed that she looked upon the process with great fear, as being very 'uncanny.' Dr. Bramwell relates how, in one of his cases, hypnosis was ushered in by a slight unilateral convulsion, but this did not prevent the operation being followed by cure.*

As regards the hypnotizability of different types taking Dr. Richardson's classification of men into animal, intellectual, nervous and their combinations—I should say that the persons of the animal type, large-framed, muscular men, of somewhat slow intelligence, but placid and easy-going temperament, unless aroused, are the best subjects. I have had several such among my somnambulists. Persons of the emotional type are not so easy to hypnotize, but once influenced are probably the best subjects for psychical experiments. I have seen a great many somnambulists of this class, and I think that any danger which may accompany hypnotism is only likely to occur in such subjects. Men of the purely intellectual type are not easily hypnotized: their minds are too analytical, and they are, as a rule, too unwilling to allow their will to be in abeyance. Nevertheless, their confidence gained, they sometimes make good subjects, though I have never seen a somnambulist of this type. A considerable number of my patients have belonged to mixed types. Animal-emotional, which Dr. Richardson rightly says is not a pleasing combination; animal-intellectual, which is an enviable balance of qualities; and

* *British Medical Journal*, February 28, 1891.

emotional-intellectual, a class comprising a very large proportion of brain-workers, and to which most geniuses belong. I have found hypnotism easily applied and extremely beneficial in the treatment of the neuroses to which this last class is especially subject. I have rarely reduced them to a state of somnambulism; and, as their minds are generally receptive, such reduction is not necessary. Undoubtedly the most difficult subjects to influence are those of weak and fidgety character, who are unable to look one in the face or fix their attention - their eyes being an index to their minds. I need hardly say that such a person as a medical man, who offered me five pounds if I would hypnotize him then and there at a medical meeting, is not hypnotizable unless he is able to change his mental attitude.

That insusceptibility to hypnotism is not a sign of intelligence is well shown by the fact that imbeciles and idiots are not hypnotizable. One of the severest rebuffs I have ever encountered in my professional experience was inflicted on me by a girl patient, an inmate of Paddington Infirmary. She was of extremely low order of intelligence, and I suppose her bringing-up had made her very suspicious of everybody and everything. She was suffering from slight chorea, and it was thought that hypnotism would do her good. However, I exhausted the different methods in vain, and at length the patient flung my arm on one side, exclaiming, 'I'm not asleep, and ain't agoing to!'

On the other hand, John Hunter has recorded (Hack Tuke) how he nearly succumbed to the wiles of a mesmerist, and only kept himself awake by fixing his attention on his great toe, in which he was expecting an attack of gout.*

* The peasant women of Brittany are said to send their children to sleep by making them look at a bright ball suspended over their cradles. This, the rocking of the cradle and the monotonous song which nurses chant to infants are distinctly hypnogenic agents acting by the monotonous and continuous stimulation of one sense. It is possible that children yield more quickly to such influences than adults because their highest centres are as yet undeveloped, and there-

Dr. Voisin's practice requires a few words of explanation. Many observers contend that as hypnotic suggestion is essentially a psychical treatment, and dependent for its success on healthful stimulation of the brain centres, it is inapplicable when the central organ is diseased. It is certainly most difficult to hypnotize the mentally affected, whether the condition be mania, dementia, melancholia, or idiocy. Nevertheless Voisin finds he succeeds in about ten per cent. of cases. But his physical strength, enthusiasm, and patience enable him to do what few men would care to try. He will spend an hour a day attempting to hypnotize one patient, and will feel amply rewarded if after twenty operations he achieves an alleviation or cure. When he read his paper before the British Medical Association at Leeds, in 1889, his listeners could only express astonishment at his method and its results. Dr. Voisin has done much good work in other branches of medical science, and practises with such openness and publicity at the Salpêtrière, that no one can fail to be impressed by his testimony.

Personally, I have succeeded in somewhat benefiting melancholia in two or three cases, and in removing slight but troublesome and long-standing delusions in several instances; and in a case of retarded brain development in a boy considerable improvement is observable, but in mental diseases generally, I have as a rule failed to produce the slightest hypnotic influence.

Dr. Van Eeden considers that hypnotic suggestion will remove delusions in their early stage, while the patient is still aware of their falsity; but that when they have become established and a part of the personality, hypnotism, even if induced, can be expected to do but little good. This exactly coincides with my own experience, though in one case—that of a medical man who believed himself to be

---

fore are more easily acted upon by inhibitory impulses proceeding from below. It is probable that the sleep of young children is of less mixed causation than that of adults it is the result of inhibition almost entirely, the chemical products of cerebration which Preyer supposes exercise so soporific an influence being a *quantité négligeable*.

under the mesmeric control of a number of persons, I succeeded in greatly mitigating the symptom. I told him that I should be able to render him insusceptible to hypnotic influences other than my own, and my suggestions being thus more or less in a line with his thoughts, he was capable of grasping them. He came to me in a very depressed condition, but about twelve operations served to greatly modify the trouble. Though he still, from time to time, heard voices, he no longer dreaded them, and felt he was able to laugh at the threats they conveyed. He has been enabled to resume his practice, and has greatly improved in bodily health and in capacity for work.

In no country have the phenomena of hypnotism been more carefully studied than in Italy. The names of some of the principal investigators—Lombroso, Tamburini, Sepilli, Tanzi, Morselli, Vizioli, Bianchi, are sufficient guarantee of the thoroughness of the work done.

A Commission of Italian physicians has been considering the therapeutic value of hypnotism, with special reference to its applicability in insanity and mental affections. After exhaustive researches they have come to the conclusion that hypnotic suggestion may be efficacious in dipsomania and the psychoses which are based on hysteria, but that in other forms of mental disease favourable results are only obtainable in a few cases. The Commission put the matter to the test by experimenting with great care and patience on fifty-five mental cases—twenty-five men and thirty-five women. Of the men, eight were affected with slight mania, nine with melancholia, eight with epileptic phrenosis, two with fixed ideas, and three with paranoia. Only two of these proved hypnotisable—one epileptic and one lypemaniac. Of the thirty women, four were affected with slight mania, nine with melancholia, seven with epileptic phrenosis, two with fixed ideas, and two with paranoia. Only eight of these proved hypnotizable, and of these three were hysterical, one melancholic, and four epileptic. In the

other cases no effect was produced. The degree of hypnosis produced was generally slight, and somnambulism only ensued in three cases—two of which were hysterical and one epileptic. As regards therapeutic results very little was achieved in any of the cases. In the opinion of the Commission, morbid auto-suggestion is an almost insurmountable obstacle — first against the success of hypnotism; and, secondly, against the fulfilment of the curative suggestions. The Commission came to the conclusion that hypnotism was therefore applicable in only a few mental diseases, but they experimented on and reported in favour of the systematic employment of therapeutic suggestions, without hypnotism, to the treatment of insanity. They found that suggestion made in the waking state is the most effective and reliable means of cure in mental diseases, and to it are due, almost entirely, the beneficial effects of the asylum—which represents a real suggestive surrounding.

'Summarizing now the results of our experiments, it appears that hypnosis was most readily obtained in cases of hysterical insanity, and in a few cases of epileptic insanity, but in other forms of mental alienation, despite our proceeding in accord with all the experimental rules, hypnosis, excepting in one case of anxious melancholy, was impossible. As regards therapeutic suggestion, made during the hypnosis, we are unable to report any actual results, excepting the case of hysterical ischuria described by Funajoli, though in some cases the hypnosis reached the degree of somnambulism, in which, according to Bernheim and others, the greatest susceptibility of the sleeper was observed. If, therefore, we may judge collectively of the result of our researches and of those made by the observers cited by us, we must conclude that a suggestive hypnotic therapeusis cannot be established, in the form of any general rule, as a means of cure in mental diseases. It seemed to be effective almost exclusively in cases in which the psychopathic phenomena were connected with a hysterical neurosis, or in dipsomania. In these special

conditions of the psyche, it seems that hypnosis is obtained with sufficient facility, and the suggestion succeeds in modifying the characters, bridling the impulses and bad habits, reviving the affections and sentiments and removing morbid ideas. On the other hand, in the acute and chronic forms of paranoia, in states of mental weakening with delirious ideas, in grave forms of melancholia and mania, it is very rarely, if ever, that hypnosis can be obtained, or that suggestion alone succeeds in effecting the disappearance or the amelioration of those morbid phenomena which are the consequence of an abnormal organization, or of profound alterations in the cerebral mass

'The results of therapeutic suggestion in mental diseases being thus examined, it seems to us that we may assume the following principal conclusions:

'1. Therapeutic hypnotic suggestion cannot be instituted as a general means of cure in the treatment of mental diseases, owing to the difficulty of hypnotizing the insane.

'2. Hypnosis succeeds most readily in the hysterical and epileptic.

'3. The most certain results of hypnotic therapeutic suggestion have, up to the present time, been obtained in the psychoses depending on hysteria and dipsomania.

'4. Hypnotic suggestion may be employed when the insane submit to it of their own accord, and derive benefit from it. The physician should use it with great caution and take account of the hurtful effects which, in certain cases, may be produced.

'5. Therapeutic suggestion made in the waking state is the most reliable and effective means of cure in mental diseases, and to it almost solely are due the beneficial effects of the asylum, which represents a real suggestive surrounding.

'6. In cases of melancholia without delirium, cases of fixed ideas, cases of alcoholism, and in slight forms of stupor, suggestion methodically repeated in the waking state, in order to combat the morbid phenomena, may prove effectual.

'7. In the chronic forms of paranoia suggestion has never given favourable results.'*

It will be seen from this summary that the Commission advises the systematic employment of suggestion without hypnotism in some forms of mental disease. They were led to this conclusion by finding that a considerable number of the subjects whom they tried in vain to hypnotize were amenable to, and responded to, simple suggestion repeated regularly over considerable periods of time. In this way they succeeded in removing fixed ideas, *folie de doute*, and incipient melancholia in several cases. They also cured by this means a drunkard, whose daily allowance of alcohol was ten to fifteen bottles a day, at least he reduced his allowance to one bottle a day. They found simple suggestion proved effectual in several cases of stupor of the first degree, by removing the state of arrest which paralyzes the will and the ideational faculties.

Dr. Percy Smith and Dr. A. T. Myers made trial of hypnotism in a series of cases of insanity at Bethlem, and the conclusions they came to are very similar to those arrived at by the Italian investigators.†

Dr. Forel, of Zürich, finds he can hypnotize even more than ten per cent. of the insane who are confined in the public asylum, of which he is superintendent, but he expresses great disappointment with the result (*op. cit.*). Even when he has obtained advanced somnambulism, so that the patient has proved anæsthetic, and susceptible to negative hallucinations, he has often failed to remove a fixed delusion. For instance, Madame A—— fancied herself Madame B——. She was very susceptible to hypnotism, and Dr. Forel assured her in the somnambulic state that she was Madame A—— and not B——. She only shook her head, and even in this state refused to part with her delusion. Dr. Forel, however, obtain good results in mental troubles of emotional and hy

* 'Therapeusis of Mental Diseases,' by Dr. G. Seppilli, translate from the 'Archivio Italiano,' in *American Journal of Insanity*, 1891

† 'On the Treatment of Insanity by Hypnotism.' *Journal of Ment Science*, 1890.

terical origin, and altogether is a strong disciple of the school of Nancy.

Dr. Forel showed me a curious condition of partial or complete analgesia which he is able to induce by simple suggestion in subjects whom he has frequently hypnotized. I saw him go up to strong, able-bodied German-Swiss attendants at his asylum, take them by the arm or hand and tell them they had lost sensation in their right hand, left eye, or some other part; one could then prick the conjunctiva, or pinch the hand without causing the least sign of pain or discomfort, though the subject would be apparently in full possession of all her faculties. It is common enough for dentists and surgeons to assure their patients that this or that procedure will not hurt, but the affirmation does not as a rule make much impression, Dr. Forel's assertion, however, did really paralyze the sensory nerve fibres, or inhibit the functioning of their cortical centre. I have been able, in a few cases, to copy this experiment, and notably in one case—a somnambulic gentleman of thirty-five of good bodily and mental health. Friction of a localized area of skin will produce anæsthesia in a few seconds, and he will then be quite unconscious of any irritation applied to it. On the other hand, a suggestion of hyperæsthesia will be followed by increased sensibility to impressions. This gentleman, though such a susceptible subject, is now quite insusceptible to the hypnotic suggestions of any save his two medical men, and his individuality has been strengthened by hypnotic treatment. (For anæsthesia induced by suggestion without hypnotism, see p. 69.)

Alcoholized persons are generally good subjects for the treatment, but I have never succeeded in hypnotizing a person for the first time while in a state of intoxication. It is necessary to wait until the first effects of the stimulant have passed off. The effect of hypnotic treatment in chronic alcoholism is very marked. The patient often first comes under observation suffering from the physical effects of his indulgence. Probably he has subacute

gastritis with morning sickness, furred tongue, flatulence and heartburn, headache and heaviness in the head, coldness of the extremities, with weak, irritable pulse and irregular action of the bowels. These symptoms, as well as their mental accompaniments—languor or extreme restlessness, despondency and irritability—very speedily yield to the treatment, so that it is no uncommon thing to see the chronic drunkard well on his legs within a week.

I have tried the action of various drugs as aids to producing hypnosis in intractable cases, but neither subcutaneous injections of morphia, inhalation of chloroform or ether, cannabis indica, nor bromides, have seemed to exert any marked effect in that direction. (See p. 175.) Hypnotism seems a psychical condition *sui generis*. Alcohol, however, appears to predispose to hypnotism, and I frequently find a subject is more amenable after a good meal than he is before it. Hypnotism practised in a rational manner is not fatiguing or trying in any way, and no concentration of the operator's mind, or direction of his will, seems to be required. Liébeault is old and not robust, yet he hypnotizes sometimes as many as forty people in a morning. The idea of personal influence and magnetic attraction so industriously promulgated by interested public performers, and so objectionable to most people, is entirely discountenanced and denied by scientific practitioners.

In the foregoing remarks an endeavour has been made to answer many questions which are constantly being put to the practical hypnotist. The answers are founded on experience which it is in the power of any medical man to verify. The cases described in the following chapter are by no means exceptional, but are fairly illustrative of the use of hypnotic suggestion in ordinary practice. The results are certainly no better than would be attained by any trained medical man using the same method with a due regard to its *technique*.

There are several highly interesting cases of more

chronic character at present under treatment. Among these are two of infantile paralysis—a boy aged eight, and a girl of ten; both are steadily improving, but progress is slow. There is an old standing case of right hemiplegia complicated with urinary trouble: the patient, a man of fifty, has improved very much in general health, and slightly as regards the local symptoms after a month's treatment. Such cases give strength to my contention, that the treatment should be employed by the attendant physician, and not as a speciality by a hypnotist. They require time, and the patient is apt to resent a long course of visits from a stranger, whereas he would be only too pleased to see his own doctor as often as was necessary.

Dr. Liébeault never attempts to hypnotize a patient for the first time if there is a spasm of pain, an access of retching or vomiting, or great emotional disturbance. An attempt to employ suggestion under such circumstances would almost certainly result in failure, and would endanger the success of future efforts. I always wait until the paroxysm is over, or, if the pain is continuous, I give an anodyne, and only try hypnotism when the disquieting symptoms are veiled by the drug.

After the patient has been thoroughly accustomed to the treatment, it is often possible to hypnotize even while he is suffering great pain, as I have seen in cases of acute rheumatism and neuralgia. But even when the patient is a good subject pain may render the process of no avail. Under such circumstances I again have recourse to an anodyne, and when the severity of the pain is subdued there is rarely any further difficulty in inducing the usual degree of hypnosis.

As an example of this, I may refer to the case of a gentleman who came to me to be hypnotized for locomotor ataxy. After the second sitting he experienced no more pains for nearly three months. Then he got caught in a storm, and sat for some time in his wet clothes. A violent attack of pain came on the night following, and he got to my house with much difficulty the next day.

The lightning pains in his thighs were so severe that they made him scream out, and they were almost continuous. He was only susceptible to the first degree, and it would have been useless to have tried hypnotism under the circumstances. After the injection of half a grain of morphia, in divided doses, he at last became quiet and free from pain, and I then hypnotized him with success, and he has remained free from pain up to the present time. He, however, returns regularly for treatment every two weeks, and I find that repetition of the operation at about that interval is necessary in these cases. Dr. Van Eeden told me, and I have fully confirmed his observation, that when natural sleep is induced instead of the hypnotic state, the subject is not in touch with the operator, and is therefore insusceptible to suggestion, and no benefit then results from the operation. I have seen natural sleep induced by suggestion several times.

Dr. Forel has stated that it is very inadvisable to hypnotize insane and weak-minded persons in company, as they are very apt to be acted upon by suggestions meant for other patients. I have always found that the more private and serious the procedure is made, the better is the result—at any rate, with English patients.

I have failed to get any improvement in a case of paralysis of the right arm dependent on spinal sclerosis; nor have I been more successful with an old-standing right hemiplegia, with late rigidity, in a young man of twenty-one, dating from an attack of infantile convulsions, and dependent on cerebral lesion.* I gave up a case of

* The improvement I have seen result from suggestion in several cases of locomotor ataxy would encourage me to try the treatment in organic cerebro-spinal diseases. Drs. Fontan and Ségard, Professors at the Medical School of Toulon, have published in their 'Elements de Médecine Suggestive' clinical notes of a case of disseminated sclerosis of the cord. The patient improved so much under hypnotic treatment that doubts were thrown on the accuracy of the diagnosis, but the man returned to the hospital the following year and died there of acute tuberculosis. A careful necropsy was made, which revealed very extensive patches of sclerosis, chiefly in the left lateral column, and rendered the improvement somewhat extraordinary. As Bernheim says, there is, no doubt, a great deal of sympathetic and functional

congenital chorea, as it was impossible to tell if the patient —a boy aged eight, of weak intelligence, but great cunning, were really influenced, or was only pretending. I am unable to say much of its use in epilepsy. In some cases the fits have diminished in number and intensity at first, but they have generally reasserted themselves. Several times, however, I have persuaded the patient to leave off taking bromides, and have generally found that hypnotic suggestion, as long as it is used, will enable the sufferer to dispense with drugs. In cases of bromism this is by no means a small gain.

In the *Zoist* and other mesmeric publications of the last generation one frequently comes across references to the successful treatment of epilepsy by mesmerism, but there is generally a want of scientific accuracy in the accounts of such cases which very much weakens their value.

On *à priori* grounds hypnotism might be expected to exert a powerful influence in epilepsy, and I confess that the rarity with which it has effected cures is a matter of much disappointment to me.

Hypnotism undoubtedly affects the cortical cells, as does epilepsy, and its action on them should be regular and orderly, instead of explosive and destructive. In fact, it might be expected to act as a physiological corrective by controlling irregular nervous discharges, breaking the morbid nerve habit, and conservating the energy which epilepsy dissipates. No doubt hypnotism does act in this manner in most cases of hysterical origin, and in some where no hysteria is present. In long-standing cases, when the disease is hereditary, or when it has a traumatic origin, I should hardly expect, from my experience, to find hypnotism of much value; and, of course, where the disease is traceable to a reflex irritation—*e.g.*, unerupted wisdom-tooth, elongated foreskin, visual defects—this should be put right. It is, however, always justifiable

---

turbance of the neighbouring centres and structures in many forms of cerebro-spinal disease, and it is this element which can be reached by suggestion.

to make a careful trial of hypnotism in cases of epilepsy, for there are many cures now recorded on the best authority. I have never myself cured a case of confirmed epilepsy, but I have frequently seen it useful in modifying the number and violence of the attacks.

Dr. Barwise quotes a case in which a lady was quite cured of confirmed epilepsy, and is now the healthy mother of a healthy family. He himself has treated four cases—two of congenital epileptic imbecility which were unaffected, and two the nature of which he does not mention. One is completely cured, and the other has a fit about once in three months, as compared with one or two seizures a week.*

Dr. Barwise has kindly supplied me with the following further particulars about these cases (May, 1891):

'The girl, aged about eighteen, began having fits when menstruation appeared I saw her in Birmingham about a year ago, and she had had no recurrence. Before trying hypnotism I had given her bromides and the usual routine remedies. In the case of the woman patient there was no history of injury, but the attacks were preceded by a feeling of numbness and powerlessness of the left hand.'

Dr. Berillon treated twenty cases of epilepsy in 1889 and the first half of 1890. He found hypnotism curative in only four cases (quoted on pp. 246-8).

In six other cases the treatment was beneficial in reducing the number of the attacks, diminishing their severity, and improving the general health, the memory and mental condition being notably ameliorated. In the ten other cases the results were negative.

My friend, Dr Outterson Wood, tells me he has effected a great improvement, which seems likely to be permanent, in a case of undoubted epilepsy of long standing (reported p. 251).

Drs. Van Renterghem and Van Eeden treated seven cases of epilepsy during 1887-88, and their results are not encouraging. In two cases no effect was produced, and

* *Op. cit.*, p. 20.

in four only slight or temporary benefit followed the treatment. In a case of hystero-epilepsy in a medical student, brought on apparently by the malpraxis of a travelling magnetizer, they were successful, as already mentioned, in stopping the attacks.

Liébeault considers that epilepsy may frequently be cured by hypnotism when it does not depend on gross organic lesion. He counsels perseverance in the treatment, and cites the case of an unmarried woman, aged thirty-nine, affected with epileptic vertigo from her birth. He continued the treatment assiduously for four years, and at the end of that time the patient was cured and has continued so.*

The question of the curability of organic disease by any method of treatment is one of great interest, and does not affect hypnotism alone, but all therapeutic methods equally. The answer depends in a great measure on what we mean by cure. If we mean only removal of symptoms and arrest of active disease, it is certain that the question is answered in the affirmative every day, for we see patients with obvious signs of phthisis pulmonalis, for example, frequently restored to what may pass for sound health by many forms of treatment. But if we mean restoration of structurally degenerated and altered tissue, I think no physician will have the temerity to maintain that destroyed lung-tissue can be restored, or that liver cells spoilt by cirrhosis can be replaced. But there are stages in a disease short of the stage of dissolution of tissue, in which, if healthy action can be set up, we may hope for *restitutio ad integrum:* for example, in the early period of fatty degeneration of the heart, before the muscular fibres have completely lost their character; in the first oncoming of Bright's disease after scarlet fever, before the excreting structure is seriously compromised.

Even when structural alteration has gone so far that restoration of the tissue to its normal quality is impossible,

* *Op. cit.*, p. 144.

we can often prevent the extension of degenerative changes, and can favour a compensative increase of functional activity in the healthy tissue which remains, *e.g.*, compensative hypertrophy in valvular disease, hypertrophy of the healthy kidney when the other is destroyed. We can also afford relief by removing symptoms and reducing them to their anatomical expression (De Watteville), as we endeavour to do in incurable diseases, such as cancer and tabes dorsalis.

There is a great choice of treatment for the attainment of these various indications, and no sensible medical man feels bound to any one of them, or maintains that it is the only method which can afford relief. Sometimes no treatment is required, and the only indications are to place the patient under the most favourable conditions for the *vis medicatrix naturæ* to act. In other cases a course of hydropathy or massage favours the curative processes, and in others again drugs exert a specific effect. Take, for instance, a case of locomotor ataxy. Sometimes the gait may be improved and the pains relieved by suspension; by drugs, especially strychnia and antipyrin; and by hypnotic suggestion. From the way many persons criticise hypnotism and hypnotists, one would suppose that we employed this agent as a universal panacea in every case. This is exactly the position we want to avoid and intend to keep out of. But we feel that it is a very great point to have at our disposal a method of treatment to which we can have recourse when other remedies have failed.*

I have tried hypnotism as an aid to treatment in stammering, but I have not been impressed with its value. Probably, it will prove useful in the case of young children before the habit has become permanent and fixed. In incipient melancholia, and in depression of spirits

* Function depends upon blood supply in the first place, and it must follow that by influencing the trophic and vaso motor centres we must affect and control not only psychic processes, but the motor sensory and structural arrangements which form their physical basis. This is practically the position we assume.

short of this condition, I have found it of service; but hitherto I have failed to notice much effect from it when the condition was of long standing. On several occasions I have succeeded in removing false ideas, as in the case of a gentleman who was afraid to enter a dark room in consequence of having been frightened by ghost stories when a child. One frequently finds morbid fixed ideas depend upon a suggestion made in early life, and these are well met by a course of counter-suggestion. Hypnotism introduces one to curious histories, and I undertook, with some confidence, the case of a gentleman, aged fifty, who for three years has suffered from a curious antipathy, apparently half-mental and half-physical. He is unable to remain in the room with his youngest son, a bright, intelligent boy of twelve, on account of the feeling of restlessness which comes over him, followed by flushing of the face, noises in the ears, confusion of thought, and palpitation of the heart. He is perfectly sane, and holds an important financial position, and there is absolutely no cause to account for the sensation.* The feeling is confined to this particular boy. At first I found it impossible to influence him sufficiently to master this *idée fixe*.

In many forms of genito-urinary troubles I have found

* The subsequent history of this case is of interest. In December, 1889, the gentleman came to see me, not as a patient, but as escort to a lady who wished to be hypnotized. The lady was nervous, and Mr. X—— offered to let me demonstrate the process on him. To our mutual surprise he yielded to the soporific influence, and fell into the second stage of hypnotic sleep, after looking at a bright disc held above his eyes for a couple of minutes, and I was at once able to make suggestions combating his delusion. He experienced less discomfort than usual from his son's presence that evening, and there was no difficulty in hypnotizing him subsequently. The morbid idea was of three years' persistence, was steadily increasing in intensity up to the time of his being first hypnotized, and was a cause of serious distress and worry to him. I had endeavoured to influence him no less than ten times previously with absolutely no effect, and I attribute my ultimate success to the fact that his mind was taken off its guard; and the nervousness, and unconscious resistance, which had prevented any hypnotic effect when he came as a patient, were no longer existent when he returned merely as a spectator.

Readers of fiction will remember that Dr. Oliver Wendell Holmes learnedly discusses a somewhat similar train of symptoms, upon which he founds his novel, 'A Mortal Antipathy.'

suggestion a useful auxiliary in treatment, nor is this to be wondered at when we consider the amount of functional disturbance which is present in these cases. In many forms of rheumatism the effect of hypnotic treatment is at first sight surprising. It very frequently removes pain even in chronic rheumatoid arthritis. There is a great deal of neuralgia mixed up with most kinds of rheumatism, and suggestion enables us to meet this and at the same time to bring about an alteration in the local blood-supply, especially if aided by friction.

Braid was extremely successful in treating these cases, and he used to combine a good deal of manipulation with hypnotism. This manipulation acted in two ways: first, on the part, by helping to break down adhesions, stimulating the muscles, etc.; and secondly, on the central nervous system, by suggestion and direction of the mind to the affected part.

In treating local troubles, it is very advisable to combine Braid's manipulative method with Liébeault's suggestions. In cases of rheumatism, I have frequently seen the joint to which this double treatment has been applied quickly relieved from pain, whilst the corresponding one has continued painful until attention was specially directed to it.

I have succeeded on two or three occasions in breaking down adhesions about rheumatic joints without pain, when the patient would not allow me to touch them in his normal state.

In various small surgical procedures, such as lancing whitlows, opening abscesses, etc., I have found hypnotism a useful anæsthetic; and it is evident that in certain operations in which chloroform is inadmissible, either from the condition of the patient or from the locality of the operation, hypnotism may be a valuable substitute.*

The casual and careless application of hypnotic suggestion will be no test of its value, and handing it over to unscientific persons will certainly end in disaster.

* It has been used in this way at the Paris hospitals, and notably in one case of ovariotomy at the Hotel Dieu.

If medical men will employ the Nancy method of treatment in their ordinary practice, they will find it a very useful auxiliary in many trying, painful, and tedious cases.

By expressing this opinion I have aroused some opposition, for there are those who think that, besides damaging the patient's health, the practice of hypnotism would ruin the doctor's pocket and reputation, since he might become the prey of designing adventurers and the victim of all kinds of charges and blackmail. I don't suppose that the most enthusiastic hypnotist would advise the practitioner to hypnotise his patients recklessly and promiscuously; on the contrary, the more experienced he is, the greater caution will he exercise. But probably every medical man has many patients who would very much prefer twenty minutes' somnolence in an easy-chair as treatment for neuralgia to a course of medicine, and others on whom the resources of ordinary treatment have been employed in vain.

It is well to understand that the Nancy method of hypnotization acts on the central nervous system as a brain calmative, and that its object is the production of a state analogous to natural sleep by imitation of natural processes, and is thus a wooing of repose. The condition obtained is characterized by increased suggestibility, and it is through this the treatment works. The method adopted by Charcot and his imitators to obtain catalepsy by causing a violent and sudden sensory impression—by sounding a gong or flashing a bright light—acts in a totally different way, and induces a state analogous to that produced in waking moments by sudden fright or shock, which paralyze and transfix with terror. It is the difference in method shown by two nurses, one of whom quiets her charge by gentle persuasion, while the other prevents her from crying by threats of the policeman. Both children are kept quiet, but how different will be the after-effect of the two methods!

A visit to some of the Paris hospitals will afford justification for the assertion which is sometimes made that

abuses have not been confined solely to non-medical operators, and I am in agreement with a French correspondent who writes:* 'I consider that every hypnotist commits a very grave fault when he provokes post-hypnotic phenomena which have no bearing on the treatment of the case. The production of pains or paralyses which do not exist, and of hallucinations, etc., may determine brain-troubles and lead to accidents.' The temptation to experiment is sometimes great, but it should never be yielded to except with the full consent of the subject and for a definite scientific object. The old experiments have been repeated *ad nauseam*, and who is now the wiser for seeing a fifteen-stone operator stand on the outstretched body of a cataleptic subject, or what can be learned from seeing a victim eat tallow-candles under the impression they are sweetmeats? When experiments are made, it is important not to repeat them too often, and to be careful always to remove any suggested hallucination before the subject goes out into the world. The much-quoted case of Krafft-Ebing's illustrates very clearly the dangers of hypnotism when the state is induced constantly and wantonly in a morbid and hysterical subject. While in a hospital at Pesth, before she came into Krafft-Ebing's hands, she was constantly being hypnotized, not only by the physicians, but by all sorts of people, simply for amusement; and in the hypnotic state most absurd and trying hallucinations were generally suggested to her—'that she was a dog, that she was intoxicated, that there was a snake on her dress,' etc. What wonder that she ran away from an institution where such things were allowed, and that when Krafft-Ebing saw her first, he found her confused, absent, and with her mind full of delusions and misconceptions! This poor girl was one of a family in which suicide, hysteria and madness was rampant, and it would be hard to find a surer plan than that adopted of developing all the diseased mental traits latent in her constitution.

* Dr. David, of Sigean (Aude).

Prof. Krafft-Ebing has embodied in his book the experiments which he continued to make on this subject, but they were conducted with great care, and led to the elucidation of many instructive points. He says: 'No detrimental effect upon her disease was ever observed as a result of hypnosis when proper precautionary suggestions were made.' This patient was so susceptible to suggestion that stigmata could be evoked, and on one occasion so severe an injury resulted from the suggestion of a severe burn on her arm—the blade of a pair of scissors being held against the skin and the suggestion made that it was red-hot—that the wound took several weeks to heal.

It has been asserted that there is danger of persons who have been hypnotized becoming subject to attacks of spontaneous somnambulism, and of their being reduced to a condition of dangerous over-credulity. I can well believe that if the method adopted is defective, there is some justification for these fears. If, for instance, a person is told that he is to fall into a state of catalepsy on hearing a gong, the result might be embarrassing when the dinner-gong sounded (see note, p. 52).*

Again, suppose a patient has been frequently hypnotized by being made to regard the rotating mirror. Certain advertisements at our railway stations bear a considerable resemblance to this instrument, and it is possible that a sensitive subject might be involuntarily hypnotized through staring at them. Fortunately, such mishaps need never occur. The method used should be of a nature not likely to be spontaneously reproduced, and the patient should be told that he is not to feel the least

* Men, like the lower animals, are creatures of habit, and association of ideas plays a leading part in our words and actions. If the association is artificially strengthened by hypnotic suggestion, it may be of overmastering cogency. We all know the story of the circus horse which was borrowed for use as a charger. Everything went well until the end of the review, when 'God save the Queen' was played. At the first bar the animal reared on its hind legs, at the second sat down on his haunches, and at the third rolled over on his back. He had been trained to those actions, and they were evoked by the accustomed stimulus.

inclination to hypnotic sleep except under certain circumstances and with his own full consent. So powerful is the effect of suggestion, that the subject so protected will probably be safer against hypnotic wiles than a person who has never been hypnotized. It has often happened that when the patient has been warned against allowing himself to be hypnotized, the very operator who has made the deterrent suggestion has for a time been unable to influence him.

There is another objection urged against hypnotic treatment, namely, that its effects are temporary, and that when a relapse occurs hypnotism will not again prove even palliative. The exact reverse is the truth. A patient who has been once relieved by hypnotic treatment is from that very cause a particularly good subject for future treatment by the same means. In diseases where the influence of hypnotism can only be temporary and palliative, as in locomotor ataxy and cancer, it will be found to relieve the pains more quickly and surely after six months than it did at first.

It is not easy to understand what foundation there is for many statements made about hypnotism. Most of these stories probably date from the time when mesmerism was extensively practised by ignorant and credulous persons, and others are perhaps founded on the experiences of professional magnetisers who have not been careful as to their method nor too scrupulous in their aims. I have on two or three occasions seen the induction of hypnotism for medical purposes actuate an attack in an epileptic subject, and I have also on more than one occasion seen it threaten to develop an access of hysteria in a subject in whom that neurosis was latent. But in nearly all cases it is easy to control any untoward symptoms by calming suggestions, or, if these fail, to awake the patient and discontinue further proceedings for the time. I think there is no doubt but that hypnotism determines the manifestation of latent emotional states—in the same way as chloroform—and this is a reason for insisting on

its very careful handling. I have only seen one class of willing patients in whom hypnotism seemed rather to produce an aggravation of the symptoms—cases of what Dr. Whittle calls congestive neurasthenia. In the last two cases of the kind which came under my observation, I began by adopting the course recommended by Dr. Whittle, and applied three leeches behind the ears to relieve the urgent congestion. This procedure greatly relieved the head symptoms, and I then induced hypnosis with great facility and considerable advantage. The patient should feel refreshed and invigorated after the operation, and if the contrary result is observed, and lassitude should prevail in spite of suggestions to the contrary, I think it may be taken as a sign that the treatment is counter-indicated I have only met with one case of the kind in my own practice, but I have heard of a few others.

My friend, Surgeon-Major Neilson (Canadian regiment of artillery), tells me that the thing which first made him investigate hypnotism was seeing the effect of the treatment on a bugler belonging to his regiment, who was in hospital and given up as a hopeless case of phthisis pulmonalis. He hypnotized the man, and suggested quiet sleep, freedom from cough, and good appetite. The patient was only affected to the second degree, but the suggestions immediately began to tell: the exhausting, ineffectual cough diminished, the appetite improved, and the man slept well. In six weeks he was able to leave the hospital and return to duty. The man was never influenced beyond the second degree. One would, of course, like to have the physical signs and points of diagnosis thoroughly described in such a case, as I am sure Dr. Neilson would not maintain that the processes set in motion by hypnotic suggestion can restore broken down lung-tissue.*

* The following extracts from a letter recently received from Dr. Neilson will perhaps be of interest to the reader. Writing from Kingston, Ontario, he says: 'Military practice offers but few opportunities of practising hypnotism, but so far I have applied it in about

Dr. Myers ('Practitioner,' vol. i., 1890, p. 201) mentions a case of acute pneumonia he saw treated by Bernheim in the hospital at Nancy. The man had the physical signs of congestion of the bases of the lungs, and was in a state of high fever and delirium. He at first refused to be hypnotized, but eventually gave his consent, and Dr. Bernheim sent him to sleep for five hours. The man awoke refreshed and free from pain and delirium, but the physical signs remained unaltered. A medical friend of mine, suffering from pleurisy and high fever and much pain, induced a colleague to hypnotize him, with the result that he experienced almost immediate relief, and, though the disease ran its usual course, there was but little subsequent pain.

The naïveté of some people who use things without knowing their nature reminds one of Molière's bourgeois gentleman who was surprised to find that he had been talking prose all his life. Among the medical men who have honoured me by coming to see some of my cases is a gentleman who seemed much struck at seeing the method I adopted with a rather refractory subject. I held his hand and stroked his forehead, while at the same time suggesting the symptoms of sleep. The gentleman told me afterwards the reason why he was so interested. It appears that he had a few months previously been in attendance on a very severe and protracted case of delirium tremens. The patient could get no sleep, and the doctor was afraid of death from exhaustion. On the third evening he resolved to make a strong effort to produce sleep, and, if necessary, to sit up all night with the patient. He told the man that he would not leave him

---

100 cases. . . . In eight or ten with brilliant success, in thirty or forty with fair success, and in the remainder with little or no result. The best results were obtained in cases of female derangements, muscular rheumatism, functional dyspepsia, constipation, insomnia, chronic pulmonary complaints, and dipsomania. Of the last-named I have treated five cases and have obtained two cures, *i.e.*, the patients have remained total abstainers, in one case twenty and in the other fourteen months without any sign of a relapse.'

until he slept, and, sitting down by the bedside, he took his hand in one of his own and with the other gently stroked the forehead. At the same time he talked quietly and reassuringly to him. In less than half an hour he was rewarded by seeing the restlessness entirely cease and the man drop off into a quiet sleep. That sleep, the doctor told me, lasted fourteen hours, and the patient awoke out of it weak, but cured. Manipulation about the head has in many persons a most soporific effect, and several persons have told me that they always become drowsy under their barbers' manipulation.

It is said by Liébeault, on the authority of several writers,* that persons in the hypnotic state, whether it be induced spontaneously or by external means, are able to ingest without evil results much larger doses of poisons than can be taken in the normal condition, and that the bites of venomous serpents are very much less likely to prove fatal than in the waking state.†

The action of hypnotism here is probably similar to that exerted by chloral in the treatment of tetanus, and of large quantities of alcohol as a remedy for snake-bites. The excitability of the nerve-centres is controlled, and excessive and exhausting discharge prevented, until the poison has been eliminated. I should imagine that hypnotic treatment is likely to prove useful in the treatment of tetanus and other spasmodic diseases depending on increased reflex excitability of the brain or spinal cord —not, be it understood, to the neglect of other treatment, but as an auxiliary.

To show what suggestion may do, I will cite the case of a medical friend who asked me to hypnotize him and make suggestions about retaining his water. He had an

* *Op. cit.*, p. 222.

† Several medical men who were present at a recent performance assure me that they saw somnambulic subjects swallow as much as eighty grains of quinine in one dose, and that they watched for effects and found none. The same public performer made his unfortunate subjects drink large and almost poisonous quantities of paraffin oil, kerosine, and other nauseous compounds without producing any result.

organic stricture and felt the greatest dread of a catheter. I found him hypnotizable to the second degree, and I made suggestions that he should be able to retain his water for four or five hours during the day and all night. After three or four sittings he assured me that, instead of having a call nearly every hour day and night, he is now able to go as long as most people. In this case I doubt if the treatment has not done more harm than good, for by relieving the symptoms it has enabled him to postpone the surgical interference which is urgently called for. I have frequently been able in the same way to relieve the dysuria of patients suffering from Bright's disease or diabetes, and sometimes even that due to prostatic enlargement.

Dr. Kingsbury, of Blackpool, has reported in the *British Medical Journal* and in his book a remarkable case of painless and rapid delivery in the hypnotic state. The patient, a young girl under fifteen, was hypnotized several times previous to the confinement, and was most deeply influenced.* Dr. Milne Bramwell has brought the surgical use of hypnotism prominently before the profession, and operations are frequently performed at Leeds with him as hypnotic anæsthetist. I need hardly remind the reader that Dr. Esdaile, Presidency Surgeon at Calcutta, performed many capital operations under mesmeric anæsthesia forty years ago.

Dr. Milne Bramwell excited great interest by showing the profession at Leeds how easy it was for him to hypnotize subjects at a distance by telegram or letter. One patient went into a deep trance immediately she handed the dentist a note, and in this state had several teeth painlessly extracted. Suggestion, of course, is the

* Dr. Marie Dobrovolsky has described in the *Revue de l'Hypnotisme* for March, 1891, a series of eight confinements in which she has employed hypnotic suggestion. The pains were either greatly diminished or abolished in all the cases, and that without interfering with the uterine contractions. In several of the cases only a slight hypnotic sleep was induced. In every instance the patient was previously hypnotized several times preparatory to the lying in.

explanation of this result. On some occasions where it has been necessary to break off the treatment prematurely, or where it has been advisable to continue it over long periods of time, I have found the following plan very efficacious. The patient is given a paper on which are drawn several lines and figures, and he is told that once a week, or as often as is necessary, he is to lie down in some place where he can be quiet, and hold the paper in his hand at a convenient distance from his eyes. After looking at it a few seconds with the desire and expectation of sleep, he will pass into the stage of hypnosis he ordinarily assumes, and in that state the memory of the suggestions previously made will recur to his mind, and he will feel them producing their usual effect. It is important to remember to tell the patient that this course is only to be adopted at the prescribed times, and that, in fact, it is a medical prescription.* A paper is not always necessary: a patient whom I am in the habit of sometimes hypnotizing by gentle stroking of his forehead tells me that he now frequently sends himself to sleep at night by imitating on himself this simple process.

I have been successful in a good many cases of neurasthenia brought on from overwork, anxiety, or dissipation, and also in the depressed nervous condition sometimes seen to persist after typhoid and other fevers.

Dr. Clifford Allbutt says ('Gulstonian Lectures,' 1884),

* The following extract from a letter received from a patient who was for some months under my treatment explains the working of this method. The gentleman was a dipsomaniac of the very worst type, and after keeping sober for seven months he left England and soon relapsed. He then went to stay in a retreat where no treatment was employed but enforced abstention; and as he told me that he found it much more difficult to abstain without hypnotism than with it, I adopted this plan. 'Doing as you suggested,' he writes. 'I made the first attempt last week, and it was completely successful. I went off at once, bearing in mind that I was to awake in ten minutes. I took the time and found that I awoke to the minute. All your suggestions came back and repeated themselves, as it were, frequently. I could quite have believed that you were there making them, and they were spoken in your voice.' My friend Surgeon-Major Neilson first caused me to try this method. He practised it successfully in the case of a soldier, whom he cured of confirmed drunkenness of twenty years' standing.

the neurasthenic patient has no reserve of energy. He has exhausted it perhaps in work, but frequently in dissipation, and it has never reaccumulated. He lives, as it were, from hand to mouth on the day's supply, and a precarious existence it is. In such cases sleeplessness is a very prominent symptom, and even when sleep is obtained it will generally be found that it is of an unrefreshing character, so that the patient wakes up saying he is more tired than when he went to bed. Theoretically, hypnotism ought to work wonders in these cases, and as a matter of fact the treatment is often most successful in them.

The profession is indebted to Dr. Milne Bramwell for much information concerning the therapeutic uses of hypnotism. He has frequently demonstrated its availability as an anæsthetic in surgery, and he has brought an exhaustless fund of patience to bear on the most obstinate cases. He has described a case of pruritis vulvæ which had resisted all attempts at hypnotization for sixty-seven times, but he succeeded in inducing somnambulism the sixty-eighth time, and the patient was cured!

He showed at Leeds a case of aphemia with paresis of the legs, which had lasted for three years, which he had cured in a few days by hypnotism: a case of hyperidrosis existent in a girl since infancy, with a patch of skin on the left wrist so affected that the perspiration was continually dripping from it to the ground. She was cured almost immediately. A case of intercostal neuralgia in a boy was cured in three sittings. In four cases of Menière's disease he found great improvement was brought about in the hearing and the vertigo was almost entirely removed. Dr. Bramwell tells me that he has never seen any harm done by judicious employment of hypnotism, and this statement coming from him must be acknowledged to carry great weight.

The medical world is familiar with instances where a treatment which has been highly praised in some quarters has failed to produce good results when tried elsewhere.

Apostoli's method of applying electricity in uterine fibroids, and Charcot's suspension treatment for locomotor ataxy, are cases in point. Neglect of apparently trivial technicalities may explain some of these discrepancies.

Practitioners of the Nancy school all over the world are agreed as to the efficacy of hypnotic suggestion, and of the absolute importance of observing points of detail. Bernheim asserts, and Forel agrees with him, that no one is entitled to speak with authority on the subject until he succeeds in hypnotizing at least 80 per cent. of the hospital patients on whom he tries the treatment. Hypnotic suggestion is a psychical treatment, and to use it successfully demands tact, judgment, medical knowledge, and knowledge of one's patient, or in the words of Dr. Felkin, a firm will, unlimited patience and a calm temperament.

It will never be more efficaciously applied than by the trusted family physician, and in his hands it will be free from the risk of abuse which might otherwise attend its extensive employment.

NOTE.—The experience of a scientific and critical friend, Dr. B., whom I have frequently hypnotized, is interesting. He is a healthy man of forty-five, of dark complexion and lymphatic temperament, somewhat hypochondriacal, and a clever and successful practitioner. He is a good subject, and is sometimes affected to the third, and sometimes only to the first degree of hypnosis. For Liébeault's 'Stages' see p. 47.

When told that he cannot open his eyes he makes no attempt to do so unless strongly urged to try, when he proceeds in the ineffectual manner already described. With much effort he is generally able to move his arm in spite of my prohibition, but the force employed is evidently entirely out of proportion to the result achieved. In the hypnotic state he feels absolutely tranquil and at rest, and when exhorted to exert himself he reflects: 'Of course I can do any of these things if I only try, but I am not going to disturb myself by trying.' When told that he will open his eyes and be wide awake when I count fifteen, he makes up his mind not to comply, and yet when I reach fifteen he cannot help becoming wide awake. After removing a real pain, such as occipital neuralgia, I have frequently, in the same subject, induced a pain localized by suggestion—*e.g.*, in the eye or forefinger. Dr. B. frequently feels a sensation of numbness, heaviness, and 'pins and needles' in a limb for some minutes after I have told him it is fixed and immovable. It is interesting to note that having been frequently hypnotized does not prevent him from successfully

operating on others, and he is beginning to use the Nancy method in his practice. In this case and all others I find the patient's co-operation is absolutely necessary to success, and I have always failed to produce any effect upon him and others when I have either asked them to resist, or when there has been some disturbing emotional element present. This is an important fact in face of the statement sometimes advanced, that after being hypnotized the patient is unable to resist subsequent attempts. I speak here only of medical hypnotism. Though I have failed to find the inhalation of chloroform of much use in inducing hypnosis in the four or five intractable cases where I have tried it, such has not been the experience of some other observers. Dr. Abdon Sanchez Herrero, Professor of Clinical Medicine in the University of Valladolid, contributed to the congress a paper on 'Forced Hypnotization' ('Comptes Rendus,' p. 212). He, following up the experiments of Dr. Rafat, of Salonica, found that there is a short period during the inhalation of chloroform when the subject is as open to outside suggestion as in somnambulism, and this stage is, he says, at the end of the period of nervous excitement, and before that of delirium—a space of very short duration, sometimes only of a few seconds. Dr. Herrero experimented on six patients, whom he had previously found to be absolutely insusceptible to hypnotism after repeated and long continued attempts. He failed in the first two cases owing, as he thinks, to allowing the favourable moment to pass, but in the other four he was successful in hitting upon the exact period of suggestibility. To the first he suggested ready susceptibility to ordinary hypnotism the following day, and as a result the hitherto intractable patient was hypnotized by a few minutes' simple fixation of the eyes the next morning. He suggested to the other three patients daily increasing susceptibility to the action of chloroform, and finally the production of anæsthesia and unconsciousness without the drug. In each case he was successful within a week in reducing the quantity of chloroform to the vanishing point, and in inducing what was practically hypnotic somnambulism by simple suggestion. Dr. Herrero has continued his researches and feels himself justified in asserting that in chloroform we have an aid to hypnosis which will enable us to hypnotize the most intractable cases, and he proposes it as an alternative to the terribly fatiguing and somewhat repulsive method pursued by Dr. A. Voisin, at the Salpêtrière, in cases of insanity. This paper throws a light on the induction of anæsthesia in Mr. Braine's case (quoted p. 9), and also on Bernheim's assertion that he finds the action of chloroform greatly reinforced by suggestions made whilst administering the anæsthetic.

Herrero, Von Schrenk-Notzing, Wetterstrand, and other authorities have made considerable use of chloroform for the purpose of quieting nervous excitement and breaking off the life of relation, and so favouring the induction of hypnosis. They express themselves as well pleased with their results. Dr. Van Velsen, of Brussels, tells me that he succeeded in hypnotizing a friend after giving him ten grains of chloral, whom he never could influence before, though he had made many attempts; subsequently the patient was susceptible without chloral, and became a somnambulist.

Dr. Barwise says: 'I have had no difficulty in hypnotizing patients taking bromide of potassium or chloral hydrate, and from some observations I made a year or two ago upon the action of cannabis indica in the treatment of sick headache, I was led to the conclusion that

this drug predisposed to (*op. cit.*, p. 7) hypnosis, and a recent experience has removed all doubt of it.'

I should here like to add a word of caution which is rendered necessary by the extensive advertising of hypnotism as a panacea for drunkenness. I am thoroughly convinced of the value of hypnotic suggestion as *an aid* to moral reform, and I look forward to a time when it will be used at all retreats for inebriates and other reformative institutions; but I recognise its limits, and I know that its indiscriminate employment will only bring disappointment to the patients and discredit to the system.

When we consider that hypnotizing simply intensifies to a notable extent the influence of suggestion on the bodily functions and mental characteristics, we see how its curative scope is necessarily limited by pathological and other conditions, and how illogical it is to expect miracles in the way of moral reformation from it alone. Granted the patient has preserved some degree of self-control and has a strong desire to be cured, it is possible that success may result from the use of hypnotic suggestion even when the surroundings continue unsatisfactory. Under such circumstances I know that publicans have been cured without leaving their business, and soldiers without quitting their regiment; but I regard these cases as exceptional, and in long-standing or inherited dipsomania removal from temptation is an essential condition of success.

It is important to bear in mind how drunkenness varies in degree and kind. Between the man who drinks to excess when occasion offers, and who cannot resist the solicitations of friends, and the dipsomaniac, there is a great difference. Though the ordinary drunkard may become a dipsomaniac, this is not usually the case. The drunkard is mad because he drinks; the dipsomaniac drinks because he is mad. Dipsomania is a form of impulsive insanity, which is nearly always inherited, and which manifests itself by uncontrollable fits, during which the patient is obviously insane. Dr. Ball, speaking of this disease, says: 'The prognosis is absolutely hopeless, especially when it depends on heredity, and is not due to acquired habit. Such patients are never cured, though the methods of treatment are as varied as they are numerous. . . . If there is any chance of safety for them it lies only in their being placed under restraint for a prolonged period, I may say for an indefinitely prolonged period' (*op. cit.*, p. 797). I have treated during the last three years about forty persons for drunkenness, and success has resulted from hypnotic suggestion in about half of these. Among the successful cases are certainly two of real dipsomania. In nearly all cases I have seen partial or temporary success, and in one instance—probably as bad a case as could be met with—the freedom from alcoholism lasted for eight months. I have never seen hypnotism weaken the character where it has been properly used, and in treating drunkenness it is interesting to note the almost invariable improvement in disposition which takes place under the influence of moral suggestions. It is my practice to make the suggestions in the direction of evoking the patient's own powers; and it would be manifestly wrong to introduce a personal element into the treatment, or to make the patient sober in order that he may please the hypnotist. But in many quarters that seems to be the idea of treatment, and in cases so treated I can well understand that when the personal influence of the hypnotist is removed the patient may relapse. I suggest: 1st, abhorrence of drink and its results; 2ndly, absence of craving for

it; and 3rdly, increased self-control, so that if temptation does arise there may be power to resist it. If the patient is only slightly influenced, or if it is only necessary to slightly supplement the power of his unaided will, these suggestions are all one need make; but if he is a person of very weak character, and is exposed to exceptional temptation, it is well to make the deterrent influence stronger by exciting a feeling of extreme physical repulsion, and this can easily be done in the case of somnambulists. One has only to tell the patient that if he takes beer or spirits they will at once cause him to vomit, and then on waking him compel him to drink a glass of beer to produce such an attack of nausea and sickness as he will remember for many a day. Even in such a case it will, no doubt, be possible for the subject to re-educate himself to like liquor, just as a schoolboy who will go on smoking, though every pipe at first makes him sick, may at last overcome the repugnance and become a confirmed smoker.

But in the combination of moral and physical influences thus produced we possess a very powerful lever. If a man has been made a drunkard through the solicitations of fast companions, his power of resistance is reduced to nil, and the offer of a drink has so often been followed by its absorption, that the sequence of events becomes automatic, an ideo-motor reflex action; but let such a man be hypnotized, and in this state be told that alcohol is poison, and that to offer him a drink is to grossly insult him—as in a case of a confirmed drunkard reported by Surgeon-Major Neilson—and we form a new inhibitory tract, which by repeatedly being traversed becomes well worn and habitual in place of the other. But it is plain that we must not expect immediate cure. Old channels cannot be destroyed, any more than new ones can be formed, in the course of a few days.

After a period of treatment, varying in different cases, a new personality or 'conscience' is produced, and the patient can return to his former associations and friends so protected as to be safe from relapse. The time necessary for restraint or close observation is from three to six weeks, and after that he should be under observation for at least a year, and the suggestion should be repeated at lengthening intervals during that time. It is by no means necessary that the patient should spend any portion of the time in a retreat if efficient control and observation can be exercised by a trustworthy relation, friend, or attendant. We must remember that at first every public-house offers a suggestion to drink, and every boon companion calls up associations of ideas connected with former self-indulgence, and opposed to the suggestion we have endeavoured to implant.

I was induced last year to undertake the case of a medical man whose surroundings were extremely unsatisfactory, but the patient expressed a great desire to be cured, and proved a very susceptible subject. Dipsomaniacs are notoriously untrustworthy, and in a few days I found on inquiry that his protestations were false, and that he had made no attempt to avoid temptation, but rather put himself in its way. Under such circumstances the treatment had not a chance, and as I refused to submit to restraint I at once abandoned it.

In another case, which has since turned out most successful, the gentleman had a relapse at the end of a week, in consequence of being insufficiently guarded from special temptation. He at once told me of his fault, and explained how difficult he had found it to act against hypnotic suggestion and take the first glass of spirits. It was a re-

batt e, so he said, with his new conscience, in which conscience nearly won the day. After a month's hypnotic treatment he seemed positively proof against temptation, and I could trust him anywhere alone. It is now a year since the treatment was commenced, and he has remained a consistent abstainer, though he has paid me four or five visits for renewal and reinforcement of the anti-alcoholic suggestions.

If the contention of many of Charcot's school and others were correct, and if hypnosis were the induction of a morbid state which takes the place of the disease, I should still consider its exhibition justified in the treatment of confirmed drunkenness; and I look forward to a time when it will be used as a matter of routine treatment in our retreats, greatly to the increased utility of those excellent institutions. Of course many cases will resist hypnotic treatment, as they resist everything else. Such cases are, I believe, absolutely hopeless, and it will be a good thing when the law allows us to keep them under permanent restraint.

My experience is very much the same as that of other physicians who are practising hypnotism all over the world Liébeault, Bernheim, Forel, Schrenk Notzing, Wetterstrand, Hamilton-Osgood, Neilson, Bramwell, Kingsbury, Cruise, etc. Berillon has contributed two papers of great interest on the subject in the *Revue de l'Hypnotisme* (August and September, 1890), which entirely corroborate the above remarks.

In the treatment of morphinomania a different course must be adopted to that pursued in managing drunkenness. In the latter the supply of alcohol had better be cut off at once, but this course would be highly dangerous in the morphia habit, even with the aid of hypnotism. The quantity may be gradually decreased, until at the end of a week the drug should be discontinued altogether This step is followed by a gastric crisis, during which the patient should be frequently hypnotized, and be kept up by nourishing foods and stimulants.

There are cases on record in which cures have been sudden, but I should greatly distrust their permanence except in very exceptional instances.

Many people have objected to hypnotism because they consider it as interference with free will. Do those who talk about a drunkard's freewill understand that they are speaking of a thing which has ceased to exist? A dipsomaniac is reported to have said that if he were given a glass of whisky, and told that drinking it would immediately consign him to the pains of hell, which might be exposed to his gaze, he would be unable to resist draining the glass. An occasional success in treating such a frightful disorder would justify the trial of hypnotism in dipsomania, even if it were surrounded with ten times the dangers with which people credit it As a matter of fact, the treatment offers considerable hope of cure even in desperate cases, and it is absolutely free from risk.

The above observations apply with increased cogency to treatment of the morphia habit by hypnotic suggestion It is well-known that this habit is more deeply impressed on the system than alcoholism, and that morphinomaniacs are even less trustworthy in their resolutions and protestations than drunkards. In treating the morphia habit it is therefore necessary to have the patient under very efficient observation, and it is desirable to induce the most advanced degree of hypnosis possible, in order that suggestion may act with the most complete effect

It is very gratifying to those interested in the subject to observe how

hypnotism is being taken up by practitioners all over the country, not as a speciality or universal panacea, but as an adjunct in the treatment of cases which have not proved very amenable to ordinary medication.

Drs. Cruise, Fitzgerald, Richard Hayes, Murphy, Redmond, and M'Cullagh, of Dublin, related cases and bore testimony to the value of hypnotism at the meeting of the Royal Academy of Medicine in Ireland, on March 6, 1891 (*Dublin Journal of Medical Science*, May, 1891). All these physicians and surgeons had made trial of the treatment, both in their private and in their hospital practice, and spoke from personal observation. Dr. Cruise has kindly informed me that the lady dipsomaniac referred to by him and Dr. Murphy continues well, and is apparently cured. He has supplied me with information regarding other interesting cases, and among these one of diabetes mellitus. The patient is a young man whose condition was very serious. By hypnotic suggestion the urine has been reduced in quantity from twenty-four to eight pints per diem, and the sugar proportionately, while the distressing thirst has been entirely relieved. Dr. Cruise says that, of course, he does not expect a cure, but it is a great thing to have been able so greatly to have mitigated the symptoms. His experience coincides with that of Van Renterghem and Van Eeden, who have been successful in their treatment of diabetes by suggestion, and who have also found it of value in Bright's disease. Dr. Draper, of Huddersfield, contributed a paper at the annual meeting of the British Gynæcological Society, held at Newcastle in June, 1891. In this he records some interesting cases he has treated by hypnotism. One of obstinate hysterical vomiting is especially striking. Another is a case in which he found suggestion of extraordinary efficacy in relieving symptoms and promoting convalescence after he had removed the ovaries, thus corroborating my own experience in such cases. His paper is to be found in the *Provincial Medical Journal* for July, 1891. Dr. Draper tells me he has used hypnotism with gratifying results in eighteen cases of midwifery, and that he has performed a considerable number of surgical operations under hypnotic anæsthesia. The manner in which many English practitioners have taken up hypnotism is exactly that advocated by Professor Pitres in addressing his students at Bordeaux: 'Be physicians, gentlemen, and not hypnotizers; but learn how to apply hypnotism, and be ready to make use of it in suitable cases.'

CHAPTER VIII.

Inhibition. — Definition. — Dynamogenesis. — Theories of Brown-Séquard. Lauder Brunton.—Interference. Experiments.

I PROPOSE in the following chapter to consider briefly the subject of inhibition, as it seems to me to be the key to the proper comprehension of hypnotic phenomena. The subject is a difficult one, and I would refer the student desirous of fully studying it to consult the works of Lauder Brunton,* Brown-Séquard,† and Heidenhain.‡

Inhibition is defined as being 'The more or less complete arrest of present functional activity of a structure or organ by a restraining influence exerted over it through a nerve centre,'§ or more fully by Dr. Lauder Brunton as 'the arrest of the functions of a structure or organ by the action upon it of another, while its power to execute those functions is still retained and can be manifested as soon as the restraining power is removed.'

It will be seen from these definitions that inhibition is quite a different thing to the loss of function which occurs in paralysis, and the cessation of function which follows exhaustion. There are two characteristics which are of great importance in the consideration of the relationship between inhibition and hypnotism: the suddenness of its induction and removal, and the want of apparent proportion between the cause and effect—*i.e.*, a relatively small excitation being capable of determining most extensive

* 'On the Nature of Inhibition and the Action of Drugs upon it' (Reprinted from *Nature*.) London, 1883. 'On Inhibition, Peripheral and Central,' West Riding Reports, 1874.

† 'Sur l Inhibition et la Dynamogenesie,' *Gazette Hebdominaire de Médecine*, etc., 1882.

‡ 'Hypnotism, or Animal Magnetism.' London, 1888.

§ 'Lexicon of Medical Terms.' New Sydenham Society.

results. Under ordinary circumstances stimulation of a motor nerve by an electric current produces in response the contraction of the muscles to which the nerve is distributed, and irritation of a sensory nerve produces a sensory reaction; *e.g.*, stimulation of the gustatory nerve arouses taste sensations, of the optic nerve visual sensations, etc. But stimulation of a nerve is not always followed by functional activity. On the contrary, it is sometimes followed by cessation of activity. 'Afferent impulses reaching a nervous centre may, instead of stimulating it to activity, stop or inhibit an activity previously going on. Whenever in any tissue energy is being set free, nervous energy brought to bear on the tissue may affect the rate or amount of energy set free in two different ways: on the one hand, it may increase or quicken the setting free of energy; on the other hand, it may slacken, hinder, or inhibit the setting free of energy' (Foster's 'Physiology,' p. 185).

The recognition of the part inhibition plays in vital phenomena is undoubtedly one of the most important discoveries which have been made in physiology since Harvey discovered the circulation of the blood. It throws light upon an immense number of phenomena previously inexplicable, and enables us to form theories of a satisfactory nature about many vital problems. It offers an explanation of the nature of hypnotic states, which is at least as satisfactory as that we have of the action of many drugs.

The nervous mechanism of the heart affords the best and most commonly cited example of inhibitory action, and here it was first studied by Weber and Cl. Bernard in 1848. The cardiac ganglia derived from the sympathetic preside over the movements of the organ, and in response to the stimulus of the intra-ventricular blood-pressure cause rhythmical contraction of the cavities. Their action is, however, controlled by the pneumogastric nerve, through which impulses of an inhibitory nature are constantly travelling and acting as a restraining force. Paralysis of the pneumogastric, of course, does away with

its action, and hence we have, among other symptoms of this condition, increased rapidity of the contractions of the heart from withdrawal of the inhibitory influence. This is demonstrated by dividing the pneumogastric in animals, and it has also been seen in cases where it has been possible to exert pressure on the nerve in men. Thus the late Professor Czermack had a small glandular tumour in close contact with the right pneumogastric nerve, and he was able by pressure on this to compress the nerve to any extent he wished, and either to completely stop the heart or simply to retard it (Lauder Brunton, 'Inhibition,' West Riding Reports, 1874).

If when the heart is beating regularly, the branches of the pneumogastric going to it are stimulated by the passage through them of an interrupted electric current, the heart will stop beating, and it will be found flaccid and in a state of muscular relaxation. This happens when the current is of sufficient intensity; but it may be insufficiently powerful to stop the action altogether, and in that case we shall see all degrees of interference from mere slight retardation to complete arrest.

But the action of the heart may be inhibited by influencing it through the pneumogastric in other ways. Golz's tapping experiment illustrates this. He exposed the heart and vessels, and also the intestines, in a frog, and he found that tapping on the intestines with the scalpel handle had the effect of stopping the heart. The practical bearing of this experiment is seen in cases where sudden death follows a blow on the stomach or abdomen. The heart is stopped by an intense stimulation of the pneumogastric through its gastric branches.

These examples show the effect of inhibition of mechanical origin, but we constantly see how the heart may be inhibited by influences of psychical origin. If the stimulation is intense, and the organ weak, absolute stoppage of the heart may ensue; and as it is with the interrupted current, so it is with the effects of emotion and shock. The heart may either stop or its action may simply be interfered with.

As in the heart we find two nervous agencies at work, the one exerting an exciting and the other a restraining influence, so it is in respect to all our functions and organs. There is a system of action and counter-action, and in a state of health there is a proper relative balance maintained between the two. There is interaction of nervous force, and no function or organ in normal life has full and unrestricted play, for its activity is modified by the interferences of nervous impulses arriving from other parts. Some of these impulses are of an inhibitory nature, and the amount of response to stimulation depends not only on the strength of the stimulus, but also on that of the counteracting inhibitory impulse. For example, a person receives a violent blow, and a nervous impulse of great force and tension is sent from the seat of injury to the brain centres. The natural response to the stimulus will be a correspondingly strong discharge of energy from the receiving centres along the motor tracts, and vigorous muscular contraction taking the form of retaliatory violence will result—this action may be called cerebro-reflex, and the less the injured person is controlled by reason the simpler will be the mechanism of the act. But in educated and disciplined communities, cerebro-reflex movements are not allowed their full play, for the functions of the highest controlling centres come into action; and in addition to excito-motor impulses sent from the motor centres, there are other impulses discharged from the centres of the highest level, and these will be of an inhibitory nature, and will modify those emanating from the lower levels. If the assaulted person has so developed his faculties of restraint and judgment that they have become the dominant features of his character, he will reflect that instead of returning the blow, it may be better to either take no notice of it, or proceed by legal action. In either case a strong inhibitory impulse from the highest centres will neutralize the cerebro-reflex one. If the injury is severe, or the power of restraint not fully developed, the action of the highest level may not be sufficient to entirely neutralize the reflex

response, and the fist may be clenched or a cry uttered. It is evident, then, that not only function but conduct also depends largely on inhibition.

The controlling action of the highest centres in inhibiting cerebro-reflex action is seen in the exaggerated start a person makes on receiving a sensory impression when his mind is not ready to receive it; for instance, the touch of a friend's hand on the shoulder will cause one to almost jump from the chair, if the faculties of attention are off guard, or if one is in a state of reverie. Similarly in hypnosis (inhibition of the cells of the highest cortical centres) reflex actions are generally exaggerated.

Inhibition may be either very extended in its action or extremely circumscribed. An example of the former is seen in the tremendous effect which follows irritation of the small mass of gray matter (the vital knot) situated at the upper part of the medulla oblongata. An intense inhibitory impulse is discharged, and the result is instant death from fatal interference with the functions of the heart and lungs: general inhibition is produced. Its confinement to a very small area is seen when the auriculo cervical nerve in a rabbit is irritated. Paralysis from inhibition of the vaso-motor nerves of the ear is produced with immediate flushing of the part. Brown-Séquard has obtained some typical illustrations of inhibitory action. By passing carbonic acid through the upper part of the larynx of a dog, and so irritating the peripheral endings of the laryngeal nerves, respiratory movements were at once checked, though communication between the lungs and the external air was freely maintained by means of a tube, and though the gas was prevented acting on the bronchial mucous membrane by division of the trachea. On the other hand, when he irritated the pharyngeal mucous membrane by directing the vapour of chloroform upon it, he found that the contrary effect was produced, and respiratory movements became greatly exaggerated and accelerated, though the quantity applied was very small, and it was prevented reaching the lungs.*

* Brown-Séquard has pointed out how in the oncoming of sleep in-

In the case of general inhibition of vital functions following irritation of the vital knot, we have seen the most intense and widespread action of this force, and in the different degrees of cardiac interference produced by stimulation of the pneumogastric we have an example of a more localized but still intense form of inhibition. As Nasmyth's hammer can either weld a gigantic bar of steel or crack a walnut, so inhibition has all grades of action, and its effects may be extremely circumscribed or widespread.

For example: No function of organic life is more influenced by mental states than that of salivation. The thought of savoury food when one is hungry is sufficient to make the salivary glands secrete and the mouth water, while fear or disgust will have an exactly opposite effect, and the mouth becomes dry and parched.*

Tarchanoff gives some interesting examples of inhibitory action, and the following are selected from his book:

If the posterior limbs of a frog be plunged into a weak acid solution, the animal will withdraw them at once; but if at the same time inhibitory impulses affect different muscles in order: the eyelids become heavy from inhibitory action on the levatores palpebrarum, the head tends to fall from inhibition of the muscles which support it. At the same time an inhibitory impulse affects the heart and lungs, and the action of these become slower. Consentaneously the mental faculties become dulled and inactive from their inhibition. In using hypnotism one endeavours by word-painting to figure in the subject's mind an image of these natural processes, relying on suggestion being followed by realization of the conditions suggested.

Brown-Séquard quotes the experiments of Fleming and Augustus Waller, showing how simultaneous pressure on the cervical sympathetic, the pneumogastric, and the carotid determines sleep. He supposes that these procedures act as peripheral irritations which are carried to a certain point—situated probably at the base of the brain—and that from this point proceed inhibitory impulses which affect the functioning of the different centres ('Archives de Physiologie,' Jan. 1889).

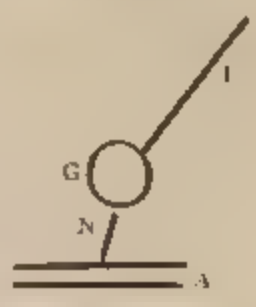
* This effect is taken advantage of by some of the Indian tribes. If a man is suspected of a crime he is given rice to chew, and told to spit it out. The guilty person is so affected by terror that the rice is reduced to a fine dry powder, in consequence of the absence of saliva, whilst if innocent it is ejected as pulp. But the function of the salivary glands can be influenced mechanically, in the same way as that of the heart. Take the submaxillary gland. It is supplied with vaso-motor nerves, which keep its vessels moderately contracted when food is not being taken. A branch of the chorda tympani nerve seems to act as inhibitory nerve of the vaso-constrictor fibres of the vessels supplying the gland, and irritation of it has the effect of causing dilatation of the vessels, with consequent increased afflux of blood and *increased* functional activity—*i.e.*, increased flow of saliva

the middle region of its brain be stimulated by an electric current or by a solution of salt, the movement does not take place, because the reflex movements have been inhibited by the action induced in the brain.

If a section of the upper part of the spinal cord of a frog be removed, and the remaining portion be connected with the brain by a circuit in which a galvanometer is placed, the needle will be observed to oscillate periodically from the passage through the circuit of nerve impulses proceeding from the bulbar centres, and this movement will continue for some time; but if a nerve in connection with the cord be irritated, it will be found that the needle will become motionless as long as the irritation is kept up. We here see that nervous action can be inhibited in the brain centres by peripheral stimulation, just as in the previous example reflex action was arrested by acting on the cerebral centres.

Tarchanoff argues that external sensory impressions act as inhibitory or moderating influences on the nervous centres of the brain, and that in hypnosis, as there is an absence of these impressions, the phenomena of excitation of the centres are no longer counterpoised, and are, therefore, in the ascendant. To support this view he instances an experiment he has made on a young dog. He exposed the motor area of the cerebrum, and stimulated it to action by applying an electric current. This procedure was found to excite localized movement, according to the zone experimented on; but when he held a piece of meat to the animal's nose, he found the movements ceased—*i.e.*, the excitation of the centres of smell and sight produced an inhibitory action on the motor centres. To enforce the same theory, he quotes an experiment performed on dogs by Heidenhein and Boubnoff. They find that when dogs are poisoned by morphia, so that ordinary external impressions cease to act upon the brain, irritation of the motor zones produces strong tonic contractions, which continue after the excitation has ceased; but if other parts of the gray matter be gently stimulated, the contractions at once cease; and the same effect is observed if the senses of sight, hearing, smell, or touch be peripherally excited. He draws an analogy between the morphinized dog and the hypnotized subject, and seeks to show how in the latter case hyperexcitability of the muscular system and senses exist, in consequence of the absence of many sided impressions from the closure of all the avenues of sense, except those specially excited.

The accompanying diagram shows how inhibitory action affects the calibre of an artery, and consequently the blood-supply of a part. G is a nerve ganglion connected with the artery A, through a nerve N, and I is a centrifugal nerve derived from an inhibitory centre. Under ordinary circumstances G is constantly acting on A as a vaso-constrictor, and keeps its walls moderately contracted. When, however, an inhibitory impulse arrives at G through I, the action of G is arrested and restrained, and the vessel A is free to dilate.



Lauder Brunton thinks inhibition of secretion may result

with the supply of blood to an
consequent cramp of the arterioles and local
direct action of inhibitory nerves on
changes occurring in the vessels.
supposes that where on the one hand
inhibitory influence at work, there is also
other hand its antithesis—dynamogenesis.
any more than other forms of
can only be transformed and made
combinations and different directions.
says that every nervous excitation
excited nervous substance two contrary
impulse towards activity and a ten-
Similarly Lauder Brunton considers
opposite phase to stimulation, that
and that the resulting condi-
with which and the direction
interference acts.
held that inhibition is the
centres situated in the brain
from these proceed nervous
nature, in the same way as
motor impulses. It is
centres of the brain exercise an
below them, and that these
them, and so on. Reflex
reaction to the removal of the
not only in the brain but
cord is removed in segments
the segment below increases
above. So the activity of
become more apparent in
control of the higher.
the best examples of the
arrangements and
the heart is removed
continue to contract
within itself ganglia
But these ganglia

have not all the same functions. The principal ones, three in number, are those of Bidder, Remak, and Ludwig. The two former appear to be excitor centres, while the latter is a moderating or inhibitory centre. This is well shown by experiment. Let the heart be cut into two unequal portions, one consisting of the right ventricle (with the ganglion of Remak), and the other of the two auricles and the left ventricle (containing Ludwig's and Bidder's ganglia), the first portion will continue to beat, but the second will remain quiet. Let this second portion be again divided, and the auricles (containing in their septum Ludwig's ganglion) will be found to remain quiet, while the ventricle will recommence beating. Ludwig's ganglion has thus proved strong enough to counteract one excitor ganglionic centre, but not sufficiently strong to control two (Küss's 'Lectures on Physiology,' edited by Amory, p. 169).

It is probable, as Brown-Séquard says, that all sensory and sensorial nerves are capable of determining inhibition, and the study of hypnotism affords a valuable confirmation of this theory. The highest centres may be inhibited by acting on several sensory areas and tracts, and the position of these seems to vary in different individuals. Gentle friction, for instance, of the forehead will in many persons speedily determine cortical inhibition and hypnosis, and some writers have even described inhibitory or hypnogenic zones.* The phenomena of zonar epilepsy afford a useful

* Professor Pitres gives an exhaustive account of these zones in his latest work. His position and experience demand our acceptance of the facts he records, but some of them, *e.g.*, the occurrence of ideogenic zones in hysterical subjects, pressure upon which give rise to various emotions and sensations according to the area stimulated, make considerable demands on our imagination. It is a matter for regret that, like Charcot, he seems to have confined his researches in hypnotism almost entirely to hysterical subjects, as experiments on healthy persons give much more satisfactory and trustworthy results. Bernheim denies the occurrence of hypnogenic zones, except as a result of conscious or unconscious suggestion on the part of the operator; but Pitres gives evidence that it is impossible to ignore, and it is, I think, best to admit that these zones are of spontaneous origin in a few exceptional cases, just as Charcot's three stages may sometimes occur without suggestion. According to Pitres, the zones must be carefully looked for, as they are usually confined to a small area. There may be only one discoverable, or the number may mount up to fifteen or

analogy here. Slight pressure on the ovaries will in many of these cases start an epileptiform fit, *i.e.*, will convey a strong inhibitory impulse to the cortex, and the highest layer will be inhibited with corresponding overaction from dynamogenesis of the lower. Conversely we find that strong pressure over the ovaries will cut short an attack which has begun, thus showing the close relationship between the neuro-regulatory forces. But though it is certain that hypnogenic zones may sometimes exist spontaneously, we must be careful to avoid confusing them with what we may call habit zones. Nerve habits are readily set up, especially in hysterical subjects, and an artificial hypnogenic zone is easily called into being by suggestion. One would only have to tell a sensitive person that pressure on his right temple would determine the hypnotic state, and we should either at once, or in a short time, find that this action would become a hypnogenic agent.

At Amsterdam, Drs. Van Renterghem and Van Eeden sometimes awaken their patients by touching the tips of their noses, and this contact is at once sufficient to end the sleep, no matter how deep it may be. An artificial

---

more. He describes (with diagrams) the case of one hysterical young woman having ten hypnogenic zones; two of these were situated in the middle line, one at the root of the nose, and the other on the vertex, and eight on the left side, viz., on the malar process, the superior border of the clavicle, mammary region, bend of the elbow, upper and external part of the thigh, knee, external malleolus, and internal malleolus.

The result of touching any of these zones was that the girl fell at once into the lethargic stage of hypnosis (Charcot), and remained in it until she awoke spontaneously, or was awakened by touching other areas which acted as waking (hypno phrenetic) zones. The danger and inconvenience arising from the existence of these zones, whether natural or acquired, is demonstrated by many cases referred to by Dr. Pitres, and if they are found to exist, hypnotic suggestion should be employed to remove them. A physician has told me that he accidentally touched one of Charcot's patients on the elbow, and that she at once passed into a state of catalepsy; and in Luys's clinique I have seen patients who are equally subject to being in a moment reduced to a state of helplessness, and perhaps unconsciousness. Such development of hysterical phenomena, whether practised in the wards of a hospital or on a public platform, constitutes in my mind a grave abuse of hypnotism. Instead of developing the morbid hyper-susceptibility of hysterical subjects by hypnotic education, it appears to me much more commendable to correct and cure it. — 'Hystérie et Hypnotisme,' vol. ii., chap. 44.

dynamogenic zone has been created. The effects of nerve habit are, of course, visible all around us. The paterfamilias who has only to take up the paper after dinner and sit in his accustomed chair by the fire, in order to almost immediately fall into a doze, is a familiar example of this condition, only a little less marked than that which we sometimes set up by hypnotism, when we give the patient a piece of paper and tell him that on looking at it he will at once feel sleepy and fall into a sound sleep. The sleep of the business man over his accustomed paper is, I believe, frequently of the hypnotic type. Though it commonly lasts only a few minutes, such sleepers have frequently told me that it refreshes them more than their night's rest; it is the rest of simple inhibition. Brown-Séquard points out that anæmia is a predisposing cause of inhibition, and it has been the experience of all observers in regard to hypnotism, that anæmic persons are often the best subjects.

The tendency of nerve habits to be formed more readily in the hypnotic than in the waking condition is shown by the fact that the subject is extremely apt to assume spontaneously, on subsequent occasions, the attitude he was made to adopt when first hypnotized. Thus if the arm was raised at right angles to the body at the moment hypnosis was complete, it is very probable that this action becomes in the mind an essential part of the procedure, and will be repeated on every subsequent occasion unless checked by suggestion.

The subject of inhibition has been closely studied by Dr. Lauder Brunton, and his researches enable us to get a little nearer the comprehension of some hypnotic phenomena. He founds his theory on the analogy afforded in physics by the interference of rays of light and sound with one another when they meet in certain relationship.* When two rays of light are combined so that the crests of the waves of which they consist coincide, the light becomes brighter; but if they are thrown together so that the crests of the waves in the

* *Loc. cit.*

first ray correspond with the hollows of those in the second, mutual interference is the result, and they so neutralize one another that darkness is then produced. Applied to the nervous system, the hypothesis implies that nervous impulses travel like waves along the nerve tracts, and as long as they coincide—apex to apex, and hollow to hollow—sensation or movement is the result of the impulse; but if the coincidence be interfered with, we get more or less complete neutralization of the impulse and inhibition. The way in which waves of light may be made to mutually interfere, is by causing them to pass through channels of different lengths, so that when they meet, one may be half a length behind the other; the crest of the first corresponding with the fundus of the second. In the nervous system it is a matter of constant occurrence that the impulse waves of nerve energy are travelling towards the centres through channels of different lengths, and it follows, *ex hypothesi*, that they are interfering with each other in different degrees. The whole nervous mechanism is subjected in its normal state to a mutual check system, so that a balance is automatically maintained between sensory and motor nerves, and they are influenced to a greater or less degree by impulses arriving from the higher centres, *i.e.*, those concerned in volition, etc.

Dr. Lauder Brunton illustrates this point by taking the case of tickling. Here convulsive muscular movements are set up by gentle continuous irritation over a sensory surface. An impulse made up of waves is promulgated to the sensory centres, and reflected from them down the motor tracts. The stimulation being monotonous, continuous, and consisting of currents of the same intensity; there is no wave interference, and the motor movements resultant are reflex. But let the pressure be increased so that instead of tickling pain is produced: then in place of a weak current travelling up one nervous channel, we have a strong irregular impulse disseminated into channels of different lengths; when it arrives at the centres which have

been subjected to interference, a different condition will result, and the reaction will cease to be merely reflex.

Up to a certain point the action of the will may be called forth to check the convulsive movements, and this will operate by interference—the waves constituting the impulse from the highest centres so impinging upon the excito-motor waves as to cause interference and inhibition.

Inhibition, therefore, according to Lauder Brunton is not a special function of certain cells and nerve fibres, but may be produced through any sensory or motor cell, and depends not on the properties of the cell, but on its relationship to other cells or fibres. 'Motion, sensation, inhibition, or stimulation, are not positive but simply relative terms, and stimulating or inhibitory functions may be exercised by the same cell, according to the relation which subsists between the wave-lengths of the impulses travelling to or from it, the distance over which they travel, and the rapidity with which they are propagated'*

Applying the theory of interference to the induction of hypnosis, we find that it serves to explain several points Take hypnotization by the method of fixation, for example. An intense and unusual stimulus is applied to the optic nerve, and by it carried to the optic centres, in the form of an afferent current of abnormal form

* Lauder Brunton, discussing the action of atropia on frogs, shows how the animal gradually loses, first, the power of voluntary motion, next the power of directing its movements then the power of springing at all, and finally reflex action, and argues that the drug lessens the functional activity of nerve cells and fibres The impulses are retarded, and thus the length of nervous connection between the cells of the spinal cord which is calculated to keep them in proper relation in the normal animal, just suffices at a certain stage to throw the impulses half a wave's length behind the other, and thus to cause complete inhibition and apparent paralysis. The paralysis is only apparent, for after a time the animal will be found to respond to slight stimulation in the same manner as if it had been poisoned with strychnia, *i e*, in an exaggerated degree. He explains this by assuming that the retardation of the impulses proceeds as the poison continues to act, so that the waves after a time interfere less and less with one another, and finally again coincide. The effect of the coincidence is increased excitability on stimulation. This is on the theory that impulses reach the centres by different routes of varying length, so contrived that in normal life a constant relationship is maintained between the position of waves, and a healthy balance is maintained.

and intensity. The effect of such strong stimulation is not confined to the receiving centre, but overflows it and acts upon neighbouring and associated ones. The nerve impulse thus sent through the communicating nerve fibres is composed of waves which meet the normal currents traversing these channels in such a way as to interfere with and neutralize them, and hence we arrive at inhibition, either complete or in part, of the functions of many or a few of the cortical centres. The condition once induced, its reproduction is rendered easy by the setting up of a nerve habit. Psychical processes such as auto or verbal suggestion may be supposed to cause hypnosis by originating a nerve impulse, starting from the ideational centres, composed of waves of such a character that they tend to cause interference with the waves of other currents, traversing the intercommunicating fibres, and so alter the conditions under which, in the normal relationship, the centres stand towards one another, as to affect consciousness and function. But inhibition is interference and not abolition of function, and its distinguishing characteristic is its immediate production and removability. By suggestion we may be supposed to start an impulse from the higher centres, the waves of which are propagated to the centres it is sought to influence, and which either coincide with and strengthen the efferent waves proceeding from these (dynamogenesis) or by interfering with them, cause inhibition.

CHAPTER IX.

Natural Analogies of Hypnosis —Relation of Hypnosis to Sleep and other Conditions. Theory of Hypnosis.—Leucomaines and Animal Alkaloids.

In the foregoing pages I have endeavoured to show that the hypnotic state has many analogies in ordinary life, and that it is not so much the creation of a new condition as the exaggeration of normal or partially normal ones. It is the intentional production of a psychical state, similar to many which occur spontaneously in all persons under certain circumstances.

The phenomena of hypnotism have points in common with those of natural sleep, reverie, mental concentration, intense nervous excitement, religious ecstasy, post-epileptic states, as well as with the effects produced by alcohol and various drugs. There is also a close resemblance between some forms of hypnosis and hysteria, and the affinity between spontaneous and induced catalepsy and somnambulism is obvious. The distinguishing and characteristic feature of the hypnotic state is increase in the ideo-motor, ideo-sensory and reflex excitability of the brain, shown by increased readiness to receive, and increased ability to act upon suggestion.

To elucidate more clearly the rationale of hypnotism, I propose in the following pages to consider briefly the physiology of conditions resembling it, and the main points of difference between them.

I cannot but think that Bernheim has somewhat

exaggerated the closeness of the analogy between hypnotic and natural sleep. To outward appearances, the resemblance is certainly complete, and hypnosis may pass into natural sleep; and sleep may partake of the characteristics of hypnosis in the same way that sleep may merge into coma, or may pass into an epileptic condition; but there are clear lines of demarcation between all these states, and the sleep of everyday life is distinct from its hypnotic counterfeit.

A short review of the etiology of natural sleep will render it more easy to understand the physiology of hypnotism. Sleep seems to depend upon several causes, and to be the resultant of their joint action. Some of these are of external and others of internal origin. First, there is exhaustion of potential energy in the brain cells, resulting from their functional activity; secondly, there is a condition of cerebral anæmia; and, thirdly, there is an accumulation in the tissues, and especially in the brain centres of waste products. To these we must add the factor of periodicity—that ebb and flow of organic life which has so potent an influence in all vital phenomena. To insure sleep it is necessary that these agencies should be assisted by other conditions, and the most important of these are, the absence of exciting sensory stimuli, a comfortable posture, and a state of mental tranquillity and repose. Sleep is banished if there is cerebral congestion: if the mind is in a state of turmoil or excitement, or if stimulating and vivid sensory impressions are constantly arriving at the highest centres. Muscular repose is also as a rule a necessary preliminary to sleep, though there are many instances in which soldiers and others under circumstances of exceptional fatigue have not been prevented from sleeping in the most strained and uncomfortable positions, any more than they have been kept awake by the continuous roar of battle or the bluster of the gale.

The chemical theory that sleep results from the accumulation of waste products (leucomaines) in the organs

s now very generally held. Preyer supposes that kreatine and lactic acid are formed during the periods of mental activity, that they accumulate in the brain centres, and from their affinity for oxygen rob the cells of this element upon an abundant supply of which their molecular activity depends. A sleeper from this point of view may therefore be considered as narcotized by the waste products of his own tissues. This theory also explains the periodicity of sleep, for these products are being constantly formed from tissue change during wakefulness, and as their quantity increases, they cause proportionate and progressive drowsiness and finally sleep. During sleep or inactivity of the cerebral centres no formation of these products takes place, and the accumulation is gradually worked off and eliminated; a supply of oxygen again becomes available and molecular energy is restored. When recuperation is complete waking ensues, and the same process is again repeated. It has, moreover, been found that the vital alkaloids formed during sleep have a convulsive and stimulating action on the nerve centres, whereas those which are formed during the day have a sedative and narcotic effect. The oxygen, which is so essential to the functioning of the highest centres, is partly derived from the blood, so that the cerebral respiration is a term in use, and is partly contained in a loosely combined state in the nervous tissue, in the same way as the oxygen required for the explosion of gunpowder is contained in the nitre of its composition. (Lauder Brunton.) The amount of oxygen, therefore, contained in the nerve tissue regulates the activity of the nerve cells, and when the German physiologist said that there was no thought without phosphorus, he might have added nor without oxygen. Nerve energy is liberated by the explosive combination of the carbonaceous elements in the nerve tissue with oxygen, and if the supply of oxygen is adequate the explosive movements which initiate nervous impulses are vigorous and their psychical concomitants are correspondingly vivid. The necessity there is for oxygen for

brain processes is shown by the benumbing and soporific effect of working in a crowded, ill-ventilated room. The cerebral respiration is affected long before that through the lungs.

Brown-Séquard* thinks that sleep results from inhibition, pure and simple, and supposes that the inhibitory impulses proceed from the neighbourhood of the medulla. He contends that the drowsiness of indigestion is not produced by the formation and accumulation of leucomaines of abnormal quality, but arises from impulses of gastric origin, affecting the inhibitory centres through the pneumogastric.

There is almost as great a difference between the profound, dreamless, and physiologically perfect sleep of the healthy labouring man who earns his bread by the sweat of his brow and is untroubled by nerves and the stuperose condition of the over-fed and under-exercised dyspeptic, as there is between natural sleep and hypnosis. The reason of this appears to be that healthy physiological sleep is the outcome of all the causes I have enumerated, acting in their proper and just relationship and proportion, whereas in the sleep of indigestion we have one cause acting in excess — the accumulation of waste products and alkaloids in the tissues, as a result of imperfect assimilation and metabolism. The sleep is incomplete and onesided here just as it is in hypnotism, and in both cases some of the elements of natural sleep are wanting. As in cases of indigestion, with somnolence and disturbed sleep, there are degrees of disturbance.

* 'Archives de Physiologie Normale et Pathologique,' Jan., 1880. He has demonstrated the fact that pigeons continue to sleep at regular intervals after the sympathetic nerves in the neck have been divided, and that dogs and cats sleep after removal of the superior cervical ganglion of one side, and division of the vago-sympathetic in the other—procedures leading to continued dilatation of the cerebral vessels, and thus proving that sleep does not depend so much on contraction of the vessels with consequent cerebral anæmia as has been supposed. Moreover, he finds that pigeons continue to sleep after the removal of the lobes of the brain, from which he concludes that sleep does not result from influences of medullar origin, and is not dependent on the state of the cerebral lobes.

varying from slight abnormality to complete change of type, so in hypnotism we see all degrees of hypnosis, from the condition, such as is seen in Charcot's cases, which has only a distant resemblance to normal sleep, to a state indistinguishable from and passing into it. The difference in type appears to me to depend upon the extent one factor is producing the state to the exclusion of the others—whether the state is an auto-narcosis from the accumulation of alkaloids, is the result of inhibition alone, or is a combination of all the causes which go to make up normal sleep.

There is ground for believing that natural sleep assumes the hypnotic type much more frequently than is commonly supposed, *i.e.*, the sleeper is susceptible to suggestion from without. It is certain that many persons who are hypnotized for the first time, and the majority of those who by frequent repetition of the process have become good subjects, do not require any special stimulation of one sense for the production of hypnosis, expectant attention and verbal suggestion being sufficient to determine the condition. Those facts are calculated to upset many of the theories of the causation of hypnosis, and to confirm the dictum of Brŏwn-Séquard that hypnosis does not depend upon exhaustion, but is a result of dynamic inhibition of the highest centres.

When Braid's method is employed, an intense strain is put upon the visual apparatus, and an excessive discharge from the cells of the visual centre is followed by its exhaustion and subsequent cessation of its functional activity. But in Bernheim's method there is no such localized stimulation and nervous exhaustion, and the condition induced would be indistinguishable from ordinary drowsiness or sleep, were it not that the subject is receptive of suggestion. The chemical theory would also be explanatory of the phenomena of Braidism, but it quite breaks down when the suggestive method of inducing hypnosis is in question. The increased functional activity of a centre must lead to the increased oxidation

of its elements, with increased formation of the products of molecular disintegration (vital alkaloids); and we know that the accumulation of these in the system is a cause of drowsiness and sleep. It is possible that their accumulation in one part of the brain may induce partial or complete inhibition of certain centres, with consequent interference with or abolition of their functions (*Tarchanoff*).

Healthy, dreamless sleep depends upon temporary abolition of the functions of the highest centres, together with a partial inhibition of those below—the middle and lower levels. In dreamful and disturbed sleep inhibition is less complete, and certain areas continue to discharge nervous energy and so produce dreams. The more intense the discharge the more vivid the dream; and if the discharge be very intense, the attending process may overstep the limit of mere ideation and take the form of action: there will be movement or sleep-walking from stimulation and discharge of the motor areas. These actions will be unaccompanied by consciousness: for consciousness depends upon the functioning of all these higher centres in orderly relation, and in somnambulism this order is disarranged or destroyed. The actions being unconscious are automatic and tend to partake of the nature of those usually or habitually performed, and will be in keeping with the character and temperament of the sleeper; for the nervous discharges will travel through well-worn and accustomed channels, and will hardly effect new combinations or movements.

The post-epileptic state shows some very important resemblances to hypnotic somnambulism; the researches of Dr. Hughlings Jackson and other observers enable us to understand its phenomena.

The central nervous system may be considered as composed of three divisions or layers: first, the medulla, pons, and basal ganglia, which function the most organized processes of the animal economy, *i.e.*, nutrition, secretion, respiration, circulation; secondly, the motor areas of the cortex, which function muscular movements; and thirdly,

the highest and last evolved cortical centres, which control and regulate the actions of those below them, and which produce new associated movements. Furthermore, we must suppose that these highest centres are assigned different grades in the hierarchy of the nervous system: it is the function of the highest of all, which are those last evolved, to control those immediately below them, and through them to exercise a governing influence over the entire nervous mechanism. It is only the functioning of these highest of all centres which is accompanied by psychical processes and is attended with full consciousness.

If the functioning of all three divisions is suspended death ensues, and if the two higher divisions are entirely placed out of action, and the lowest only functions, with enfeebled force we get a state of coma, in which the patient lies absolutely motionless and unconscious, and out of which he cannot be roused. In this state the functions of organic life alone continue, and they only with greatly diminished activity. Such are the coma of apoplectic states, alcoholic poisoning, etc. In these cases the condition depends upon destruction of the properties of the highest nervous arrangements, either from gross lesion or from chemical changes. One sees a somewhat similar condition produced by exhaustion of nervous elements in post-epileptic coma.

In natural, sound, dreamless sleep, we also get the action of the two highest divisions of the nervous system completely suspended, but the sleeper can be easily aroused, because the suspension depends to a great extent on cortical inhibition. In sleep accompanied by dreams there is incomplete suspension, and certain areas of the highest division continue to function apart from their usual combinations, and therefore more or less unintelligently.* If the action of the discharging

* An experiment referred to by Heidenhain and also by Gerald Yeo serves to show how completely the higher cerebral faculties are in abeyance in the profounder states of hypnotism. Both these authors

centres is energetic, it will, as we have seen, be accompanied by movements, and somnambulism may result. In hypnosis brought about by suggestion, cessation of function does not depend upon exhaustion, but is the result of inhibition, and is not therefore followed by exhaustion, but on the contrary refreshes the system in the same way as, and in a marked degree more than, natural sleep. The awakening is immediate, and depends upon the removal of the inhibitory influence. If the phenomenon depended upon exhaustion of the nervous elements, time and rest would be required for recuperation, and this we know is not the case.

Hypnotism cannot, I believe, produce epilepsy *de novo*, even though it be employed ignorantly and recklessly; but under such circumstances it may determine a latent tendency. In hypnotizing epileptics, it is by no means uncommon to see a slight fit produced by the process. The same applies to the administration of chloroform

---

refer to the production of the 'echo voice.' This is produced by stroking the back of the subject's neck with the hand, when he will at once repeat any words said to him. The effect produced is curiously like that experienced in listening to a phonograph. The subject may be perfectly uneducated, and yet he will repeat accurately after the reciter an ode of Horace or the chorus from a Greek play (compare case on p. 70). An analogous experiment on a frog, deprived of its brain, illustrates how completely the profoundly hypnotized subject may be said to be 'robbed of his cerebral hemispheres.' If the frog's flanks be gently stroked it will croak, not continuously, but each stroke will be followed by a croak, so that Yeo supposes there is an unknown relation between certain sensory surfaces and the speech centres (*op. cit*, p. 13).

Another experiment is that of making a person speak by placing the hand over the left temple, the idea being, of course, to stimulate Broca's speech centre underneath. The subject will at once answer if spoken to; but if the same place be again touched he will as suddenly become silent, though he may be in the middle of a word or sentence. I have seen several such experiments, but have hitherto been unable to repeat them on unprepared subjects. Heidenhain and the other writers of more than a few years ago were not so fully alive to the extraordinary readiness of the subject to act upon suggestion, and to take advantage of the smallest hint as we are now. The subject's mind is like an extra sensitive plate. As the slightest light will affect the one, so will the faintest hint influence the other. Without denying that somatic reactions may occur in the hypnotic state, I think we should be very cautious in accepting them.

and the ingestion of an excessive quantity of alcohol, and tends to show that in each case the agent acts on the cells of the same cortical area. The view put forth by Dr. Hughlings Jackson, in discussing epileptic convulsions, that the highest level of the cortex not only subserves the psychical processes which constitute the physical substrata of consciousness—volition, thought, emotion, judgment, etc.—but also represents, though very indirectly, muscular movements and organic functions, and throws an important light on the action of hypnotic suggestion on vital processes.

The action of hypnotism is probably exerted entirely on the highest centres, and if these represented only mental processes, it would be difficult to understand how by affecting them we could produce the changes in nutrition and function which undoubtedly result from hypnotic suggestion. But if it be correct to suppose that we can influence the functions of the lower centres by acting directly on the highest, that by influencing the hierarchy, we can modify the behaviour of the subordinate functionaries of the body; we hold a key to the solution of the problem. According to Liébeault, we attack disease and affect function in gross by acting upon the starting point and centre of vital processes (the cerebrum) instead of addressing ourselves to the treatment of their peripheral manifestations, and attacking these in detail by drugs.

I believe all physiologists are now agreed as to the effect the higher centres of the cerebral cortex are able to exert over the lower nervous arrangements. Professor Morselli of Genoa writes: 'Every mental state and every act of the intelligence has its centrifugal equivalent.'* 'The mental functions act as supreme and constant regulators of all the nervous processes, even of those which are purely automatic and are not attended with consciousness. Though they are withdrawn from the direct influence of the psychic activity, they are nevertheless dependent on it.'†

* 'Fisiopsicologia dell' ipnotismo,' p. 14.
† *Ibid.*, p. 24.

Bernheim contends that 'the brain controls all the organs and every function, and that each part of the organism has its ultimate representation in a brain cell, which is its *primum movens*.* Each movement is realized by a cortical motor centre, and each tactile, visceral, and muscular sensation by a cortical sensory cell.'

He considers that all the organs and functions are subordinate to psychic states, and that by determining these states we can influence function.† In the earlier part of this work I have quoted numerous instances showing the connection between psychical states and organic functions, but in these the psychic influence has for the most part been accidental and undirected, and the resulting reaction has not infrequently been more harmful than beneficial. Hypnotism enables us in many cases to control this influence and direct it into proper channels. I would compare the effect of emotional states to the conduct of the master of a large establishment. As long as everything goes on well, his interference with *minutiæ* is not required, and would probably be harmful. Every foreman and servant knows his place, and the work is regulated as it were by clockwork. But let some grave source of danger or difficulty arise, and we shall find that the master's hand is needed to control his subordinates and to prevent confusion and damage arising. Suppose, that instead of orderly and necessary interference, his conduct is guided by passion or dictated by panic, and what do we find? Instead of his action being beneficial, it is injurious, and even disastrous. Action of the incompetent or panic-stricken master is comparable to the misdirected and haphazard influence of the higher centres on the general health and functions in emotional states: while the beneficial influence exerted by a cool-headed and capable one is paralleled by the influence the higher centres can be made to exercise over the lower by means of hypnotism.

* 'Hypnotisme, Suggestion, Psycho-Therapie,' p. 449

† *Ibid.*, p. 46.

Dr. Lauder Brunton quotes a case which he considers strongly corroborative of his view that the highest layer of the cortical cells controls the functioning of the lower centres, and that it has an influence even over reflex actions. A patient under the care of Sir (then Mr.) Crichton Brown was attacked with facial erysipelas, which spread by metastasis to the brain. The man showed symptoms of cortical irritation, and examination showed that the reflexes were abolished. The disease progressed, and he became unconscious, and it was then found that the reflexes had returned. The patient died, and the autopsy revealed degenerative changes in the cortex.

Dr. Lauder Brunton, therefore, supposes that nerve currents set in motion by irritation of the brain, or some of its convolutions transmitted down the cord, may inhibit reflex action.* Dr. Mercier† and other writers on insanity point out how disease of the highest centres is nearly always accompanied by disorder of nutrition. This is especially seen in the alteration which takes place in the nails and hair, the former becoming brittle and ill-shapen, and the latter coarse and refractory. Dr. Van Eeden once showed me a little girl under treatment by suggestion for infantile paralysis. The little patient was gradually regaining the use of her legs, and a great improvement in general nutrition was apparent. In no direction was this more marked than in the toenails. For three years there had been no growth in these, and they had never required cutting; but a month after the treatment was commenced they had grown so long as to necessitate the use of the scissors, and from that time they required trimming every four or five weeks.

A few words on the foundations of consciousness will enable us to comprehend better its impairment or abrogation in the advanced stages of hypnosis. Its physical basis depends, first, on the connection of the highest

* 'On Inhibition,' West Riding Reports, 1874
† 'Sanity and Insanity,' p. 135.

layers of the cortex with the other parts of the nervous system; and, secondly, on the connection of the highest centres with each other. So that, as Professor Michael Foster says,* consciousness, volition, and other psychical processes are not the functions of the cortex, but functions of its connection with other parts of the nervous system. He asks what would happen if while the cortex remained healthy, afferent impulses were no longer conveyed to it, and he answers that lethargy with suspension of all psychical processes would be the result. He supports this theory by citing a remarkable case, that of a man who, being deaf, and blind of one eye, became in addition affected with complete tactile and general anæsthesia, and anosmia. His only connection with 'the life of relation' was through the one sense which remained in functional activity, and when the eye was kept closed he soon passed into a condition of lethargy. Dr. Macfarlane in his recent work, 'Insomnia and its Therapeutics,' quotes a somewhat similar case: that of a girl, aged sixteen, whose skin and mucous membrane became completely anæsthetic, so that she failed to perceive the application of violent stimuli to them. At the same time she lost the muscular sense and became entirely dependent on her sight and hearing for her relationship with the outer world. Here again it happened that closing these two avenues of sense resulted in the rapid production of sleep. She could be aroused from this by stimuli acting on these senses, and she also used to awake spontaneously after a time if left to herself. These cases form an interesting antithesis to that of Laura Bridgman, who not only possessed one sense (that of touch) very abnormally developed, but also enjoyed an unimpaired coenanthesis, so that the cortex of her brain was being constantly acted upon by healthy impulses. She did not therefore fall into lethargy when the tactile sense was not in use, but slept in the same way as ordinary persons.

The condition of lethargy into which Dr. Foster's

* 'Physiology,' vol. iii., p. 117.

patient fell is closely imitated by the completely inert state assumed by certain hypnotized persons, especially chronic epileptics. They become perfectly lethargic, insensible to pain, and deaf to the loudest noises. They are not susceptible to suggestion, and can be aroused from a state resembling coma only with considerable difficulty. Dr. Habgood showed me several such cases last year, and I have seen the condition induced in one of my private patients, a confirmed epileptic. In consequence of the impossibility of establishing *rapport* with these patients, I imagine that hypnotism would fail to benefit them.

Consciousness depends, then, on the activity of the senses, the conveyance of their impressions to the highest centres, and the association of these highest centres with each other. Anything which interferes with one or other of these conditions will weaken or destroy it in proportion to the amount of interference. In ordinary hypnosis we find the facts exactly bear out this theory for sensory anæsthesia; deadening of the senses, benumbing of the faculties, and impairment of consciousness proceed *pari passu*, and maintain a relative connection. But the coenanthesis or subjective consciousness, on which to a large extent depends the *ego* or personality, is the last part of the organization to be affected.

There is another factor in vivid consciousness. Not only must the afferent impulses from the senses and the internal organs be received by the highest centres, but the efferent impulses in response to them must be vigorous and of high tension. Vivid consciousness only exists when nervous impulses are sent through new or little-used channels, and automatism prevails when the passage of nerve energy is only through thoroughly organized tracts.

In ordinary hypnosis it is the well-worn channels which are traversed, and therefore the actions performed during it will tend to be those habitual with the subject, or at least in keeping with his character and temperament.

This point has an important bearing on the question of the employment of hypnotic suggestion for criminal purposes, and also on the possibility of using it in the reformation of bad characters. I think we may infer that hypnotism will rarely enable us to convert the hopelessly bad, but that it may be used to influence character by developing latent good and suppressing evil tendencies. It is possible, however, that by continued suggestion new channels may be formed, new tastes established, and old tracts inhibited and eventually closed and abolished.

It is a natural corollary that when consciousness is weakened or abolished, memory will be correspondingly vague and uncertain, or altogether wanting, for memory depends upon the vividness of impressions, and their arrangement and association.

Some opponents of hypnotism have nicknamed it 'teetotal intoxication'; but the analogy between it and the effects of alcohol is not very apparent. The drunken man is to a certain extent receptive of suggestion, and it is easy to foist delusions upon him, which would be rejected were he sober. The effects of alcohol show themselves in a somewhat different order to those of hypnotism. In the former we have the nervous system involved in the inverse order of its evolution, and the first part to suffer is that concerned in the highest psychical processes—memory, will, judgment, etc. In the lighter grades of hypnotism we do not find the psychical functions so much affected as those of motion and sensation, and it is common to meet with a patient who is quite unable to open his eyes, or put down his arm, if told he cannot, in perfect enjoyment of all the highest mental faculties. I have frequently tried to hypnotize intoxicated persons, but have never succeeded unless the patient has been previously hypnotized. On the other hand, chronic indulgence in alcohol seems to somewhat favour the hypnotic process.

Dr. Gowers* has examined the subject of hypnotic

* *Lancet*, May 31, 1890.

catalepsy, and has published his views concerning it. He supposes that hypnotism induces such a change in the functional state of the brain, that the lower cortical mechanism is cut off from the influence of the higher centres which subserve mental processes as well as exercise control over those below them. The inhibition of the highest implies, as has been shown, the uncontrolled and exaggerated action of the lower or motor areas, for muscular relaxation or balance depend upon the equal functioning of the inhibitory or higher centres, and the excitor or lower ones, in the same way as regular action of the heart depends upon the inhibition of the vagus balancing the excitation of the cardiac ganglia. The inhibition of the highest centres in hypnosis explains why the muscular movements and reflexes are exaggerated and at the same time unattended by consciousness. In the same way the movements of a paralyzed limb are not accompanied by psychical processes, though they may be excessive.

In the lighter grades of hypnotism there are psychical accompaniments, and the patient knows the limb is being moved, but is unable to prevent it, or can only do so by making great efforts. In the more advanced stages he loses all, or nearly all, sensation in the limb when it is moved by the operator, so that he often says that it 'seems to no longer belong to him.'

The analgesia of profound hypnosis is easily explained. It is sometimes more apparent than real, and then resembles that of incomplete narcosis. The subject suffers at the time; but on awaking, has forgotten the circumstance. If hypnotized again and questioned, he will say that he felt the pain, but not sufficiently to cause him to shake off the lethargy which oppressed him. But in many cases there is absolute anæsthesia, and the patient is completely ignorant of what is being done to him. We know that anæsthesia may be produced in three ways—by acting on the arrangements of the highest centres, so as to cause cessation of their functions; by

acting on the peripheral endings of nerves, and destroying their irritability; and by destruction or inhibition of the tract conveying sensation from the periphery to the brain. Chloroform acts in the first manner by setting up chemical changes in the brain cells, and hypnotism influences the same nervous arrangements by dynamic inhibition of the molecular activity of the cells. Cocain is an anæsthetic of the second class; and in poisoning by curara, and in the cutaneous anæsthesia of locomotor ataxy, we see the third cause at work. The anæsthesia produced by suggestion alone, as in the cases referred to on p. 69, can be explained by supposing that the centres of tactile sensation, which Ferrier localizes in the hippocampal region and the neighbouring temporo-sphenoidal convolutions, where also probably painful sensations are received (Lauder Brunton), are put out of action by some inhibitory action akin to that which obtains in the local anæsthesia so common in hysteria, and which probably proceeds from some irritation of distal origin, acting as an inhibitory influence. The sensation of pain is due to some condition of the cerebrum itself, and is caused by the arrival at the highest centres of intense afferent currents from the seat. Liébeault supposes that in perfect health there is an equilibrium in the distribution of nervous force, which is upset in disease. Disease is accompanied by either excess or deficiency of nerve energy in the centres enervating the affected organs, and hypnotism enables us to check and correct this disarrangement. This theory is not without support, for we frequently see excessive and irregular action in one organ, associated with deficient action in others in the same subject. Centres are constantly discharging their energy through the most traversed channels, and nerve energy is being sent to the organs which have already absorbed most of it; *e.g.*, an uncontrolled and excessive nerve influence is constantly being sent along the nerve tract concerned with the movement of a limb in hysterical contraction. Hypnotism may be supposed to act in such a case by enabling us,

through suggestion, to divert or transform the nerve energy which is thus being misdirected. Whatever theory we may adopt as to the ultimate causation of the hypnotic state—and theories are almost as numerous as writers on the subject—we at least know that its phenomena are of subjective origin, and that they depend upon the inhibition and dynamogenesis of some centres, and the disconnection of others which ordinarily act in association.

How this disassociation is effected is of course a point of immense interest, and is in fact the crux of the whole matter. Its rationale must remain a matter of theory, as it depends on changes of the most subtle nature. But we know at least as much about the action of hypnotism as we do about that of many drugs which we use every day. It probably depends upon intra-cellular changes in the arrangement of molecules, whereby the discharge of nerve energy is prevented. The clogging of these molecules, and their consequent failure to respond to stimuli, through the ingestion of chloroform and other drugs, their excessive stimulation by coffee or small quantities of alcohol or opium, and their abnormal stimulation by belladonna or Indian hemp, belong to a different order of events. Natural sleep remains the closest analogue to hypnosis; but in sleep the inhibition extends to all the centres and their functions, and cannot be in part overcome by verbal suggestion; this is the important point of difference between the two states. Moreover, as we have seen, not only can the inhibitory influence be exerted in any direction we wish by verbal suggestion, but its correlative condition, dynamogenesis, can be treated in the same way. The rapid and even instantaneous induction of hypnosis in 'good subjects,' can be explained by the setting up of a nerve habit, so that on the exhibition of the accustomed stimulus, the molecules fall at once into their former combinations. I have already said that for this reason we should be careful to make the exciting cause a combination of circumstances, which would not

be likely to occur spontaneously. The tendency of the sequence of events to repeat themselves on the application of the accustomed stimulus is often seen in hypnosis. If on the occasion of the first hypnotization the patient's arm has been fixed in a certain attitude at the moment the process was completed, it is very probable that the arm will spontaneously assume the same attitude at each subsequent sitting. In fact, the position will become an integral part of the process, unless the impression is removed by suggestion.

According to the school of Nancy, suggestion is the key to the whole position. By it the patient is hypnotized, and without it he lies like a log, inert in mind and body. By it one centre can be made to act independently of others, and can be thrown into functional activity without the corresponding actions of those ordinarily associated with it. Thus connections advantageous to the organism can be formed, and unfavourable associations can be modified or broken off.

The state of the subject lying passive and unacted upon by suggestion very closely resembles natural sleep. The breathing becomes slow and regular, the pulse slower and more full, the pupils contract and the eyeballs turn upwards. There is generally relaxation of all the muscles as in sleep, and the arm, if raised, falls at once, unless retained in its place by suggestion. Ophthalmoscopic examination of the retina shows neither anæmia nor congestion. If a state of profound hypnosis is kept up continuously for several days or weeks, as has sometimes been done, changes are said to occur in the urine. The chief of these has been called 'inverted formula of the phosphates,' the relative proportion between the earthy and alkaline phosphates becoming changed. Dr. A. Voisin kept several patients who were subject to periodic attacks of insanity in the hypnotic state for from fifteen to thirty days,* and he and Dr. Harant carefully collected and examined the urine passed before and during hyp-

* *Revue de l'Hypnotisme*, March, 1891.

nosis. They found this inversion of proportion the only characteristic difference (*vide* table).

But the amount of urea, fixed residue, and phosphoric acid were all slightly increased, thus justifying him in stating that in such cases the nutritive and eliminative functions were better performed in the hypnotic than in the waking state.

Voisin conducted these experiments in consequence of a paper read before the Académie des Sciences by Dr. Gilles de la Tourette, in which that opponent of the Nancy school stated the results of experiments he had made on some hysterical patients and on some subjects in Charcot's stages of hypnosis. He also found the ratio of earthy phosphates to that of the alkaline phosphates inverted from the normal proportion of 1 to 3 to 1 to 2 and sometimes 1 to 1. He moreover found the quantity of urea, phosphates, and fixed residue diminished in both hysteria and hypnosis as well as diminution in the quantity of urine passed, and he therefore concluded that the hypnotic state is a hysterical neurosis and that it is attended with serious disturbance of nutrition. Here again we see the antagonism between the schools of Paris and Nancy, and in this case it would certainly seem that reason is on the side of Dr. Voisin, for whereas Gilles de la Tourette's experiment extended only over a few hours, that of Voisin extended, as we have seen, over weeks. The experiments of the former were, as is generally the case in Paris, made upon hysterical subjects who were hypnotized: it was therefore natural that the secretion should partake of the characters of hysterical urine. Dr. Voisin's figures also lose much of their value in consequence of his subjects being in a state of mental disease, so that experiments on healthy persons are wanted to decide this point.

And this brings me to the vexed point whether hypnosis is pathological, and a neurosis, as is contended by Charcot, or physiological, and even indicative of perfect mental health, as is asserted by Bernheim, Voisin, Forel,

Dates.		Quantity.	Urea.	Residue.	Phosphates			Proportion of Alkaline to Earthy Phosphates.
					Total	Alkaline	Earthy	
May 23	Hypnotic sleep ...	1200cc	27g8	50g32	1g80	1g25	0g55	44 to 100
„ 24	—	1000	10 62	23 30	0 61	0 40	0 21	52 „ 100
„ 25	—	875	15 60	28 70	1 32	0 43	0 49	59 „ 100
Mean	-	**1025**	**18 00**	**34 1**	**1 24**			**51 „ 100**
June 4	—	1750	21 10	55 04	1 26	0 69	0 57	83 „ 100
„ 5	—	1650	13 20	46 13	1 34	0 95	0 39	42 „ 100
„ 6	-	1200	20 61	44 73	1 67	1 06	0 57	53 „ 100
Mean	—	**1533**	**18 3**	**48 6**	**1 42**			**59 „ 100**
June 17	—	1200	16 21	42 00	1 71	1 34	0 37	27 „ 100
„ 18	—	1900	19 00	57 60	1 67	1 30	0 37	30 „ 100
„ 19	—	1500	18 54	59 40	1 47	0 98	0 49	50 „ 100
Mean	—	**1533**	**18 00**	**53 00**	**1 61**			**35 „ 100**
July 1	Normal state ...	750	9 12	30 00	0 38	0 105	0 275	261 „ 100
„ 2	—	1000	10 00	32 62	0 43	0 32	0 11	34 „ 100
„ 18	—	1200	13 23	48 00	1 14	0 82	0 34	41 „ 100
„ 19	—	1100	20 00	51 2	1 81	1 29	0 52	40 „ 100
Mean	—	**1012**	**13 08**	**40 45**	**0 94**			**35 „ 100** for the last three days.

Mean Total.		
	Sleep.	Normal State
Quantity ..	1363cc	1012cc
Urea ...	18g1	13g08
Residue ...'	45 2	40 45
Phosphates	1 49	0 94
Proportion of alkaline to earthy phosphates	59 to 100	35 to 100

Déjerine and others. I have little doubt myself but that *le grand hypnotisme* of Charcot, when it occurs spontaneously, is a distinct neurosis of the hysterical type, and that many of the phenomena of advanced hypnosis are only obtainable in subjects of neurotic temperament. But that all people who have been hypnotized, or might be hypnotized, are hysterical or neurotic would be to so classify the great majority of mankind.

Dr. Buzzard says that most brain-workers and men of energy are more or less neurotic, and that the word should not carry the reproach with which it is sometimes associated. Even if most brain-workers are neurotic, I cannot so characterize agricultural labourers, soldiers, or sailors, and we know that among them are often found the best subjects for hypnotic experiments.

A most masterly and judicial exposition of hypnotism is contributed by Professor Tamburini of Modena, who impartially holds the balance between the theories of Bernheim and those of Charcot. He and Dr. Seppilli experimented on a hystero-epileptic patient, and published their notes on the case in 1882. At that time the important part now assigned to suggestion was not recognised, and in dealing with experiments made more than five or six years ago one has to guard against the possible invalidation of the facts brought forward by unconscious suggestion. Tamburini, however, is positive on this point, for he approached the subject in a most sceptical spirit, and under the impression that the patient's unconsciousness was merely simulated. But he obtained all the phenomena described by Charcot at once, without difficulty, and without suggestion being possible. The further experiments of Vizioli, Grocco, and Lombroso in Italy fully confirm his results, and make it impossible to doubt that the stages described by Charcot are real somatic phenomena occurring in certain individuals. Tamburini, however, traverses Charcot's assertion that such phenomena are characteristic of all

cases of *le grand hypnotisme*, and contends that they are rare accompaniments of hysteria in hypnotized subjects of the hystero-epileptic type. Tamburini considers that these somatic phenomena are not obtainable in their entirety even by means of suggestion in ordinary hypnotized subjects nor even in the majority of hysterical subjects Hypnotism merely accentuates and brings into prominence the characteristics of the patient, both physical and psychical, whether they be undeveloped or suppressed To enforce this theory he cites cases where Charcot's phenomena have occurred in hystero-epileptic subjects in the waking state, just as in a few rare instances stigmata have been spontaneously produced without hypnotism. Hypnotism, by cutting off the life of relation greatly facilitates the production of these accompaniments of extreme hysteria.*

He sums up the condition seen in the three stages as hyperexcitability of the nervous centres, which shows itself in different ways, according to the nature, intensity and duration of the stimulus applied. Hypnotism, in fact, increases the reflex excitability of the nervous centres, which is always abnormally present in hysterical persons, and in these cases it practically induces an attack of *la grande hystérie*, complicated with hypnotic phenomena. Tamburini therefore considers Charcot's stages as not characteristic of hypnotism, but as merely illustrating the only essential features of the condition, viz., increased susceptibility to suggestion and increased reflex excitability. The stages of hypnosis he considers as only a form of classification, such as we might adopt in speaking of the relative profundity of natural sleep.

It follows, from what he has written, that Tamburini refuses to regard hypnotism as pathological or a neurosis, but he considers it a psychical state, which may be induced in healthy persons, and which is as varied in its manifestations as are the temperaments and constitutions of the subjects.

* 'Riv. Speriment.,' vol. xvi.

Braid found increased action of the heart with acceleration of the pulse, and he therefore warned experimenters to be careful with subjects in whom heart trouble was suspected. Tamburini and Seppilli, in their experiments on hysterical subjects hypnotized by the method of fixation, got similar results, which they have very carefully recorded. They found that in the stages of lethargy (Charcot), the tracing tends to rise progressively, whereas in catalepsy the reverse is the case. This shows that in the former state the vessels undergo dilatation with consequent increased volume of the pulse, whereas in catalepsy they progressively contract. In somnambulism the condition approaches closely that observed in lethargy. The volume of the pulse augmented in the passage from the waking to the hypnotic state, and the changes indicated by the sphygmograph in the transition from one state to another, were instantaneous.

In the profounder states of hypnotism I have found nearly constantly present a tonic contraction of the capillaries and smaller arteries, so that wounds bleed less freely than in the waking state, and it is often possible—as is sometimes shown in platform experiments—to make a considerable puncture without drawing blood.

The phenomena observed in the respiratory sphere are exactly what we should expect. Tamburini and Seppilli find that when hypnosis is induced by fixation of the eyes disturbance of rhythm commences at once; and as long as the subject's attention is fixed it is quick and shallow, or it may even intermit or cease entirely for as long as a minute. But invasion of sleep is always marked by a profound inspiration. During lethargy the breathing is deep, becomes slower and slower, and tends to be accompanied by stertor. When catalepsy is induced by opening the eyes, there is an immediate arrest of respiratory movement—at whatever stage it has reached—and this suspension may last a minute or longer. The breathing then becomes of peculiar character and rhythm :

inspiration being slow, and expiration still slower. In somnambulism the character of the respiration partakes more of the character of that seen in lethargy, but is somewhat more irregular. During natural sleep, as in the waking state, there exists a rhythm between the movements of the chest and abdomen in respiration, but Gilles de la Tourette states that in hypnosis this rhythm is altered, and that the movements are no longer associated, and may even become antagonistic (Dict. des Sciences Med., 'Hypnotism'). In reading Gilles de la Tourette's writings on hypnotism we must remember that he refers to experiments on the most hysterical subjects, and it is well to bear in mind Preyer's warning against confusing *post hoc* with *propter hoc* symptoms.

Preyer remarks that the disturbance in the circulation and respiration noticed by some observers does not depend upon the hypnotic state, but is the result of the nervous stimuli used—whether visual, tactile, or auditory; and in support of this contention he maintains that persons in the waking state exposed to similar sensory stimulation will exhibit the same phenomena. They are in fact the result of inhibition of the respiratory centre, producing shallow and rapid breathing, and of the regulating circulatory centres, causing increased rapidity of the heart's action with heightened arterial tension from vaso-motor paralysis.

When hypnotism has been induced by simple verbal suggestion without any special sensory excitation, no such alteration of the pulse and respiratory rhythm is observable; and it is also seen after the patient has rested a few minutes in a state of hypnotic lethargy induced by fixation, that the breathing and pulse assume the character found in ordinary sleep. Tamburini, therefore, considers that the respiratory and circulatory symptoms observable in Charcot's stages of hypnotism, are simply manifestations of the conditions characteristic of this state general increased muscular tonicity with ischæmia.

It would thus appear that the principal Italian investi-

gators are fairly in accord as to the phenomena of hypnosis, only that Morselli denies the possibility of Charcot's stages occurring spontaneously, while Tamburini asserts that he has seen them so occur in exceptional cases. I have not yet come across a case in which

Fig. 1.

Charcot's stages have been producible, but I believe that such cases exist. Morselli's experiments are so full and graphic, that I reproduce them as being thoroughly illustrative of the effect suggestion in the hypnotic state has

Fig. 2.

upon the heart and respiration. My own experiments, as far as they have gone, are thoroughly corroborative of them.

The subject of these experiments was a healthy young

girl presenting no signs of hysteria, unacted upon by magnets, and not susceptible to Charcot's stages. She was always hypnotized by Professor Morselli or Dr. Tanzi by suggestion alone. From the first she fell into a state of profound trance, and was extremely susceptible

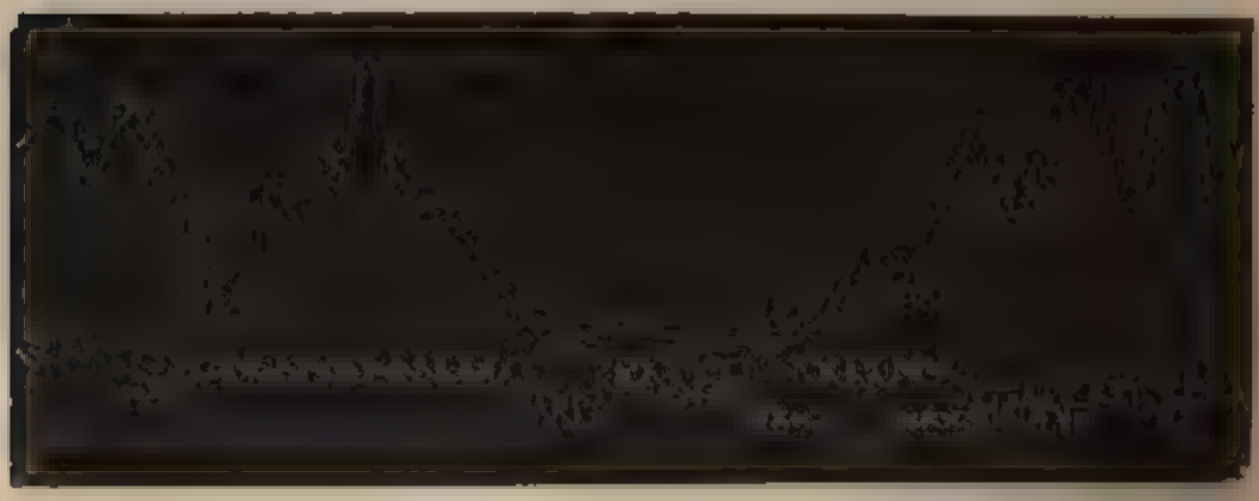


Fig. 3.

to suggestion. The respiration was measured with Marey's pneumograph, and the pulse with Mosso's aero-sphygmograph.

Fig. 1 shows the tracings taken when the subject was awake and in her normal state. They show how the

Fig. 4.

ordinary 'life of relation,' thoughts, ideas and impressions, influence the rhythm and regularity of the functions.

Fig. 2 shows the tracings taken when the patient is lying tranquil and in a state of deep trance, unacted upon by the environment, and in a state of complete psychical repose.

In Fig. 3 the subject is told that she is to lift an imaginary weight. At * she raises it, and at ** she is told to put it down. The effect in the tracing is the same as if a real weight were being borne. There is the muscular contraction and preparation for the effort, followed by relaxation. This supports the theory that the idea is attended by motor accompaniments.

Fig. 4 represents the tracings taken when an attack of hiccough was induced by suggestion.

Fig. 5.

Fig. 5 represents the tracings taken when suggestions had been made leading up to a state of stupor, which the experimenters found a close reproduction of those observed in the idiopathic condition.

It is plain that the only characteristic symptoms of hypnosis in this case were slight increase in volume of the pulse and marked equalization of the respiratory curves. In fact, they are just what we should expect to find in a condition of absolute psychological repose. On the other hand, Charcot, Gilles de la Tourette, Tamburini, and others, as we have seen, describe marked changes in the phenomena of the circulatory and respiratory functions in the different stages of *le grand hypnotisme*.

Morselli found that by suggesting the symptoms, he almost invariably and immediately produced the respiratory curves and pulse tracings belonging to that condition, and he was even able to obtain the characteristic tracings of melancholia, mania, and other mental disorders.*

Preyer says that the rapidity of the pulse increases in some persons and diminishes in others, and directs that great care be taken to avoid error in gauging the blood-pressure. He finds that the pulse-rate frequently falls at first, but on the induction of catalepsy it becomes greatly quickened, and the radial artery is so compressed by muscular constriction that the pulse in it can hardly be felt. He also notices that the capillaries of the face are often very full during hypnosis, though sometimes there is pallor, or alternate pallor and flushing; but he thinks we should be wrong to infer from this that either anæmia or hyperæmia of the brain is necessarily present. Preyer finds that persons who have naturally very dry skins, readily perspire in the hypnotic state, and that the head is especially affected in this way. I have very frequently been able to induce perspiration by suggestion, in persons who were in only the lighter grades of hypnosis.

Preyer found that after long hypnotic trance the chlorides and phosphates were greatly diminished: but the subject experimented on was markedly hysterical. It is but natural, however, to suppose that prolonged inactivity of the muscles and of psychical functions would be accompanied by greatly diminished waste and metabolism of tissue Liébeault considers that hypnotic lethargy is a state similar to that assumed by hibernating animals, and he conceives it possible that organic life might be preserved for a very long period if the subject were kept warm and absolutely removed from sensory stimuli. He supposes that respiration would fall to eight,

* 'Contributo sperimentale alla Fisiopsicologia dell' Ipnotismo.' Morselli e Tanzi. Milan, 1889.

the pulse to thirty, and the excretion of urinary products to something very small. In the case referred to by Dr. Voisin, the patient was fed as usual, and as has been seen, her excretions differed but little from the normal waking standard.

Mo...
almo...
pirat...
cond...
terist...
disor...

Pr...
some...
great...
press...
first. ...
quick...
muse...
be f...
face ...
times...
but h...
that ...
sarily...
natur...
state...
I ha...
by s...
grad...

Pa...
chlo...
the ...
It i...
inac...
be ...
boli...
leth...
ani...
mig...
wer...
stin...

Mo...

...TER X.

...ated by Hypnotism and Sugges-
...ated Hysteria: 2. Hysterical
...ia: 4. Chorea: 5. Hysteria:
... Cramp: 8. Rheumatism; 9.
...gia of Fifth Nerve: 11. Sciatica:
...menorrhœa: 14. Menorrhagia:
...pochondriasis: 17. Puerperal
...ral Habit: 19. Moral Depravity:
... Head-ache and Dyspepsia; 22.
...emia and Deficiency of Saliva: 24.
...: Loss of Speech for Eight Years:
... Hemi-Anæsthesia: 27 to 30.
...er: 32. Syphilitic Retinitis; 33.

...author...: Insomnia: 2. Neur-
... Tabes Dorsalis: 5. Torticollis:
...onic Diarrhœa: 8. Paroxysmal
...: 10. Supra-orbital Neuralgia:
... Heart-trouble: 13. Symptoms
...se: 14. Enuresis Nocturna; 15.
...ism: 17. Nervous Dyspepsia:
...menorrhœa: 20. Post-Partu-
...22. Moral Case: 23. Incipient
... Neurasthenia: 26. Alcoholism:
...e Anæmia.

...ive an extract of cases
... suggestion from the
...d others. Most of the
...e originals.

... *year completely Cured*
... *Sittings.**

... of two children. A
... temperament. She
... hysteria until 1885,
... domestic trouble.
...ed a nervous crisis;
...
...

Dr. Bernheim was consulted in October, 1886. The attacks had then increased in frequency and severity. They occurred about once a week, and were ushered in by a feeling of general weight and heaviness, and by a sense of constriction at the throat. These premonitory symptoms were followed by a deep sleep, which lasted from ten minutes to an hour. After this came general muscular tremors, which increased to strong convulsive movements, alternating with general rigidity, arching of the spine, etc. On this stage followed one of muttering and hallucinations, loud laughter and gesticulation. After the attack had lasted from one to two hours it passed off, leaving great exhaustion and *malaise*, with complete forgetfulness of what had occurred during the fit. On October 19th Dr. Bernheim was consulted; he examined her and found nothing organically wrong. He hypnotized her, and she at once fell into a profound sleep. He suggested while she was in this state that there should be a disappearance of the malady, and that it should not reappear. On October 21st and 23rd she returned, and was again subjected to the treatment. There was no further need for suggestion, as the patient was cured and remained free from hysteria.

CASE 2.—*Hysterical Contracture of the Leg. By Dr. Dumontpallier (Physician to the Hotel Dieu, Paris).**

The following case presents so many points of interest and so well shows the Nancy method of procedure, that I give it at some length:

The patient, a young girl of eighteen, was under the care of Professor Verneuil at the Hotel Dieu for hysterical contraction of the pelvi-trochanter muscles and of the flexors of the knee, dating from an attack of coxalgia some months previous. The limb had been forcibly extended under chloroform and been kept in mechanical appliances for three months and a half without benefit

* Being portion of a clinical lecture, translated from the *Revue de l'Hypnotisme*, April, 1890.

when Dr. Dumontpallier was called in to see her, and he thus describes her condition. There was general cutaneous and sensory anæsthesia of the right side, with paresis of the right arm: complete retention of urine, so that the catheter had to be passed several times a day: there were also hysterical symptoms starting from the left ovary. The left side was normal in respect to sensation and muscular power, and defæcation was regular. The girl had had her first attack of hysteria two years before as the result of a fright, and from that time had been subject to various nervous troubles.

Dr. Dumontpallier determined to try the method of 'hypnotism by persuasion.' The patient was extremely nervous and apprehensive in consequence of the number of unsuccessful treatments she had undergone, and the doctor proceeded to soothe and quiet her as follows: 'My poor girl, you have endured a great deal of suffering, and you are in a very sad plight for one so young. You have a disorder of the nerves, but I shall be able to cure you, or at least to relieve your suffering, if you will do as I tell you and allow yourself to fall asleep: you will have no fear, but will feel quite at your ease, and when you awake you will find that you are better.' He then told her to look at him, and repeated several times 'Sleep, sleep, sleep.' Soon her eyes became humid, her eyelids fell, her eyes gradually closed, and in a few moments she passed into a state of somnambulism. She answered when spoken to, and the left side became as anæsthetic as the right.

Dr. Dumontpallier then made suggestions: 'The apparatus will soon be removed, and you will then find that you can move your toes, extend your leg, and turn from the right on to the left side; you will feel a desire to pass water, and you will ask for the chamber and be able to use it without difficulty. You will sleep an hour, and when you awake you will recall to mind all the suggestions I have made to you, and this evening at the moment you fall asleep you will think of what has been done this

morning.' Dr Dumontpallier was careful to suggest that while the right side became well there should be nothing amiss with the left side, as he feared 'transfer' might otherwise take place. On returning to the ward the next day he found that the patient had awakened at the end of an hour and had asked for and used the chamber. The catheter was not again used, and at night she slept on the left side for the first time for several months.

The girl was hypnotized daily, and steadily improved without having any relapse, until on the fourth day the apparatus was removed and she was able to sit up in a chair and move her leg.

In a few days more the patient was able to walk, and the atrophy of the long disused muscles began to disappear with exercise and massage.

CASE 3.—*Hysterical Aphonia for Two Months, rapidly Cured by Suggestion.**

Madame C. L——-, aged 30, has been hysterical since girlhood. On January 15th, 1884, having been voiceless for two months, she consulted Dr. Bernheim, who first applied electricity to the throat externally, affirming the while that it would cure her. As that, however, had no effect, he hypnotized her, and at once induced a profound sleep. He suggested to her while she slept that her voice should return, but on awakening her he found no improvement. The second and third séances were equally unsuccessful. At the fourth she slept more heavily, and Dr. Bernheim was able to make her say she expected to be cured in eight days† (the following Tuesday). He continued to hypnotize her daily, and each day he caused her to repeat that she was to be cured on the Tuesday. When that day came she was quite uncon-

* Bernheim, *op. cit.*, p. 427.

† In many cases it is most important to get the patient to fix a time for his cure; the idea becomes deeply implanted, and, in hysterical cases, it is generally realized. Of course, the sleep must be very profound to make this possible.

scious of having made this prophecy, she was still voiceless, and was hypnotized as usual. Dr. Bernheim told her she must speak when he awoke her, and impressed her strongly with this idea. On arousing her she said in a feeble voice, 'I think I can speak now.' The voice became gradually stronger, and by the evening was restored to its normal quality and volume. Dr. Bernheim gives many other cures of hysterical aphonia, several of them after one séance.

CASE 4.—*Choreic Movements of the Hands and Inability to Write, cured by Hypnotic Suggestion.*

Victorine A——, aged 12½, of lymphatic temperament and good constitution, affected with chorea of the right side. It appears that when she was four and a half years old she suffered from general chorea, brought on by fright. It was a very severe attack, as she could neither walk nor talk, and had great difficulty in eating. It lasted three months. A second attack of the same kind came on when she was seven and a half. She was attacked a third and fourth time at intervals of two years. In the fifth attack she was brought to Dr. Liébeault for treatment. It commenced on May 27th, and on that day she had seven very violent fits, on the 28th and 29th the same number, and then she was hypnotized for the first time. Afterwards, in the afternoon, she had two fits slighter than the preceding ones. On May 31st again hypnotized. On that day she had one fit, and then no more until June 9th, when she returned to be treated for a relapse brought on by fright. Professor Beaunis happened to be at the dispensary, and he got the patient to attempt to sign her name. In spite of much effort, the child –a very intelligent and docile little girl –completely failed to make any distinguishable letter on the paper (Fig. 6). Dr. Liébeault hypnotized her, and while asleep she was directed to write her name. The result was fairly legible, and she wrote without hesitation or trembling. She was soon awakened, and again told to write.

Without difficulty she at once wrote her name and address in very creditable style (Fig. 7). For the next few

FIG. 6

days she continued under observation and treatment, and was then discharged perfectly cured.

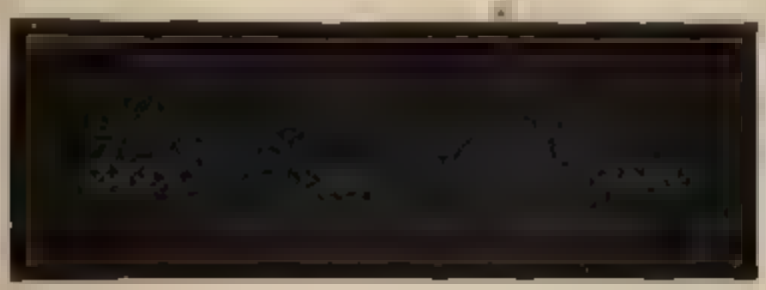


FIG. 7.

Professor Beaunis says he makes no remarks on this case, as the handwriting appeals more than words can to an unprejudiced mind.*

* Beaunis, *op. cit.*, p. 236.

CASE 5.—*Hysteria, Sleeplessness, Want of Appetite, Tremors, Depression of Spirits, Cured by Suggestion in Two Séances.*

Mdlle. X——, aged 27, an intelligent lady who had enjoyed good health and spirits, and was free from hysteria until August, 1885; at that time she had a disappointment which changed everything.

In February, 1886, she consulted Dr. Bernheim. She had then suffered for months from complete want of appetite, sleeplessness, giddiness, especially on lying down, terrible dreams when she did sleep, and slight muscular tremors in the limbs, so that it was not easy for her to keep her hand steady. She had been treated with bromides and antispasmodics without success. He hypnotized her, and she slept easily and profoundly. He suggested the disappearance of all her troubles, and after two séances all the morbid symptoms had disappeared, she slept well, and ate with appetite. Her spirits were as good as ever. Dr. Bernheim adds that she remained well.

CASE 6.—*Intermittent Pseudo-Paralysis of the Lower Limbs, with Convulsive Trembling of the Legs for nearly Four Years, Cured by One Hypnotic Suggestion.*

Madame S——, aged 26. After much domestic trouble and a bad miscarriage, this lady completely lost the use of her lower limbs for three months. The paralysis disappeared as suddenly as it came, but returned again in a few weeks. These intermissions and relapses followed each other every few weeks, up to the time Dr. Bernheim saw her, for nearly four years. She had undergone all kinds of treatment—including electricity and massage—at the hands of the most eminent neurologists of Paris, but nothing seemed to shorten the terms of paralysis or to avert them. On May 29th, 1887, Dr. Bernheim was sent for to Paris to see her. He found her perfectly free from the ordinary symptoms of hysteria, in good general health without any organic disease, and unusually bright and intelligent. While lying down she was able to move

the legs perfectly well, but when Dr. Bernheim made her attempt to stand she at once collapsed, and would have fallen to the floor had she not been supported. On moving the legs they were seized with tremors, over which she had no control.

He found the reflexes normal and all the functions perfect.

On being hypnotized she fell into a light sleep, during which she was conscious of everything going on around her. On being aroused she denied having been at all influenced. Dr. Bernheim, while she was in the hypnotic state, moved the legs, and told her she would be able to stand and walk quite well when he told her to try.

After the operation he insisted on her making the attempt, and, to her surprise, she was able to both stand firmly and walk with confidence.

He hypnotized her again the next day, when she fell into the third stage of sleep, and the suggestions were repeated.

Madame S—— had been suffering from the present attack for six weeks when Dr. Bernheim was called in. He had opportunities of seeing the patient at intervals afterwards, and there was no relapse.*

CASE 7.—*Writer's Cramp for Three Years; Rapid Improvement; Temporary Relapse; Finally Cured by Suggestion.*

H. C——, aged 47, an accountant, consulted Dr. Bernheim, November 18th, 1885. He was healthy and strong, and in no wise nervous or hysterical. Three years before he began to feel symptoms of the malady. After writing a few lines all the fingers became contracted, and he had to desist for a time. At first he was able to write again after a short rest, but gradually the cramp became worse, so that he was unable to sign his own name. By means of various devices he contrived to go on a little longer, but at the time he consulted Dr. Bernheim he had been compelled for three months to write with his left hand.

* Bernheim, *op. cit.*, p. 457.

He was hypnotized, and at once fell into the third degree of sleep. Dr. Bernheim suggested the disappearance of the cramp. On awaking he was able to write two lines and a half without cramp. The next day he wrote eight lines without cramp

On November 21st the patient was able to write a business letter, and only complained of feeling heaviness in the wrist, and a slight tendency to flexion of the fingers.

On November 24th the improvement was still maintained, and Dr. Liébeault took charge of the case during Professor Bernheim's absence for two months. In the middle of September a relapse took place, and the patient again became unable to write more than a few lines. He left off treatment, until January 29th, when he again consulted Dr. Bernheim. Improvement now rapidly set in and progressed until, on March 2nd, he finally discontinued treatment, being perfectly cured. He has gone back to his office, and writes all day long without fatigue or cramp.*

CASE 8.—*Rheumatic Pains in the Shoulder-joint for Three or Four Months, completely Cured in Two Séances.*

Emile L——, aged 61, glass-maker, consulted Dr. Liébeault, November 30th. He had never suffered from rheumatic fever, but nine years before had had sciatica for three years.

When seen, the pain was in both the shoulders, but especially the right one, at the place where the collar-bone articulates with the scapula. There was also a tender spot above the anterior superior spine of the ilium on the left side It was most felt on stooping. Besides all this there were pains in both knees. The patient was hypnotized, and fell into a light sleep. On awaking the pains in the knees were gone, and those in the shoulder were much better. He had been unable for three weeks to dress himself, but now he was able to do so.

* Bernheim, *op cit.*, p. 486.

On November 3rd he was again hypnotized, and again slept lightly. He awoke perfectly cured, and remained so.*

CASE 9.—*Articular Rheumatism for Three Months, Cured by Suggestion in Two Days.*

Jeanne M——, aged 17, consulted Dr. Bernheim, August 3rd, 1887. She was brought to the hospital in a carriage, and into the consulting-room supported with difficulty by two persons, being quite unable to stand alone. She was lymphatic, pale and thin, and had had an attack of hysteria brought on by chagrin some months before.

Since May she had suffered from subacute rheumatism, which had gradually and steadily become worse.

Dr. Bernheim found that both wrists were extremely painful, but not swollen. The first joints of the fingers were greatly swollen and acutely painful on pressure. The left knee was slightly swollen and very tender. There was also pain below the right ankle and in the joints of the toes. The spine was tender on pressure.

There was also amenorrhœa, leucorrhœa, and sleeplessness. The patient was hypnotized and fell into a sound sleep.

On August 6th, after two séances, she felt very much better. She slept well, had a good appetite, and had hardly any pain. The swelling of the joints had almost entirely disappeared, and there was only tenderness on pressure. She was again hypnotized, and the suggestion made that she should feel no more pain.

On August 8th she returned completely well and cured of all the symptoms, was able to walk perfectly and without any pain, and was altogether a changed person.†

* Bernheim, *op. cit.*, p. 539.
† *Ibid.*, p. 544.

CASE 10.—*Neuralgia of the Fifth Nerve for a Year, with Tic-douloureux for a Month; Rapid Improvement and Cure in Ten Days.*

Charles X——, aged 60, entered the hospital July 27th, 1885. His trouble had commenced a year before with pain in the right side of the nose. The pain came on several times a day, and lasted from a few minutes to several hours. Since four weeks the pain had spread to the eye, the forehead, and all the right side of the face. It was very acute, and came on in paroxysms every hour or two, and lasted about half an hour. In the intervals there was no pain, but only a feeling of burning. There was lachrymation during the attacks, and they were also accompanied by convulsive movements of the face.

The patient was strong and well otherwise for his age. Dr. Bernheim found the points of exit of the branches of the fifth nerve sensitive to pressure, and all the right cheek tender to the touch. On July 28th, the first attempt to hypnotize him was unsuccessful; but on July 30th he was successfully operated on, and when he awoke he felt much better. In the afternoon he had paroxysms of pain, but less intense, and he slept better that night than he had done for weeks.

He was hypnotized about every second day until August 9th, by which date he was perfectly cured, and he remained well.

CASE 11.—*Sciatica for Seven Weeks, Cured by Suggestion in Six Days.*

Joseph L——, aged 44, shoemaker, was admitted into the hospital under Dr. Bernheim, May 15th, 1885. He was a weakly person of lymphatic temperament and with emphysema. He had continual pain along the course of the sciatic nerve of the left side, and this was everywhere painful on pressure, aggravated by sitting, and especially by lying down in bed. The leg felt heavy and

numb, and the pains, which were pricking in character, radiated from above downwards.

On May 20th he was hypnotized, and fell into the third degree of sleep. He felt better on awaking, and the curative suggestions were repeated daily until the 26th. Each day he became better, and in a week was perfectly cured. He had previously been treated with medicated baths at the hospital for three days without much effect.*

CASE 12.—*Nocturnal Enuresis from Infancy, cured by a Single Suggestion.*†

Jacob S——, aged 17, of weak intellect, but strong and healthy, had always suffered from the above complaint. He had control over the functions during the day, but nearly every night he suffered from incontinence.

He consulted Dr. Bernheim, December 28th, and was hypnotized with great readiness. Suggestions were made to him while in a state of profound hypnotic sleep that he should awake several times in the night, and leave the bed.

He returned to the hospital, but required no further treatment, for the malady was at once cured, and did not reappear.‡

CASE 13.—*Amenorrhœa. Suggestion that the Function should Reappear on a Certain Day. A Successful Result.*

Mdlle. C——, aged 25, teacher, consulted Dr. Bernheim November 17th, for the above-mentioned trouble. She had seen nothing since 7th October, and in consequence she felt distended, a sense of constriction round the waist, and other symptoms referred to the same cause. She was a regular patient of Dr. Liébeault's, and she readily fell into a profound sleep. Dr. Bernheim suggested that

* Bernheim, *op. cit.*, p. 548.

† *Ibid.*, p. 495.

‡ All practitioners of suggestion agree that the system is almost specific in the treatment of this troublesome complaint uncomplicated by organic defects.

the function should be re-established on November 30th, and made the patient repeat the suggestion after him.

On November 30th she came to tell him that it had happened as he suggested. He hypnotized her again, and suggested December 28th for the next period. This also was realized.*

CASE 14.—*Menorrhagia about every Twelve Days. Altered by Suggestion to Twenty-eight or Twenty-nine Days and finally Cured.*

Madame H——, aged 35, mother of three children, the youngest of which is nine years old. Hysterical, but of good constitution. Before she had had children the period used to come on every three weeks, but for two years it had returned about every twelve or fourteen days, or even at shorter intervals It was accompanied by pain and hysterical troubles, and was very copious. The patient readily fell into a profound sleep, and Dr. Bernheim suggested that the next should not come on until October 9th, should only last three days, and should not be accompanied by any pain.

September 27th. This was the fifth séance, and the sixteenth day since her last period. She felt premonitory symptoms of its return—such as headache, and pain in the back. These symptoms, however, passed off, and by means of suggestions repeated every second day the period was retarded until the night of October 6th and 7th, or twenty-six days. *This was the first time in her life that there had been more than twenty-one days' interval, and the first time for two years that it exceeded sixteen days.* It lasted three days, was unattended with pain, and was less copious than usual.

On October 18th, Dr. Bernheim recommenced hypnotic treatment, and suggested that the next period should be on December 4th or 5th, and henceforth every four weeks.

* Bernheim, *op. cit.*, p. 557.

It appeared at the end of twenty-four days. The treatment was continued until the following May, by which time the function was thoroughly regulated, and occurred every twenty-eighth or twenty-ninth day, without pain, or other abnormal symptoms. During the treatment a number of nervous and catarrhal symptoms disappeared.*

CASE 15.—*Partial Paralysis of the Left Side for Eight Days. Rapid Improvement under Suggestion, and almost Complete Cure in Three Weeks.*

Louis C——, aged 60, house-painter, was taken into the hospital November 7th, 1886 He had enjoyed good health until six days before, when he had suddenly felt a sensation of weight in the left leg. He returned home, and two hours later felt the same sensation in the left arm, accompanied by a pricking, which still continued when he entered the hospital. In the evening he was no longer able to use his left leg.

Dr. Bernheim found the temperature and pulse normal, the arteries atheromatous and rigid. The features deviated markedly to the right. The patient sat up in bed with difficulty, and was unable to fully raise his left arm, which was also weak and easily tired He was unable to stand. When lying down he was able to raise the left leg, but could not keep it up for more than four or five seconds. The reflexes were diminished, and he was unable to bend the instep. Sensibility normal. Constipation for four days, for which he was given an enema.

On November 9th the patient was hypnotized, and fell at once into a profound sleep. On awaking he was able to hold up the left leg for ten seconds, and to bend the toes better.

* Bernheim, *op cit.*, p. 560. The effect of imagination and emotion in modifying the renal, alvine, uterine, lacteal and other secretions is so well known, that the striking results produced by hypnotic suggestion in their functional disturbance is not to be wondered at. In 'Carpenter's Physiology' (*loc. cit.*) numerous examples are given.

He was hypnotized the 11th and 16th, with only slight effect. On November 17th, after the suggestion, he was able to stand alone, and to walk with very little assistance.

On November 19th he was able, after being hypnotized, to walk the length of the ward without help. He could hold the leg up when lying down for an indefinite time, and had quite regained power over it. The reflexes were slightly increased.

He progressed steadily every day, and was able to walk downstairs on December 2nd. He still, however, felt a heaviness in the arm and leg, which prevented his using the brush or climbing ladders so well as formerly.*

Professor Bernheim fully describes one hundred and five cases of many kinds of disease treated by hypnotic suggestion. Among these are several examples of grave cerebral and spinal disease, in which the treatment seemed to prolong life, and of which it certainly relieved the suffering.

Examination after death often revealed a great amount of disorganization, so that it seemed extraordinary that any treatment could bring about much improvement. He explains the good effects which attend suggestion, even where there has been extensive hæmorrhage into the brain tissue followed by atrophic changes, by insisting that in disease of the nervous centres, functional derangement often exists quite out of proportion to the actual lesion, *i.e.*, hæmorrhage may destroy a portion of the brain substance, and this may react on the neighbouring zones by setting up sympathetic irritation.

Neither suggestion nor anything else can, of course, do anything to restore the disorganized brain tissue; but it is all-powerful, he observes, in the treatment of the sympathetic and functional troubles which accompany such a condition (*op. cit.*, pp. 308-324).

CASE 16.—*Aggravated Hypochondriasis.*

M. F——, aged 43, has suffered for a year from this malady. She is conscious of all her internal organs, and

* Bernheim, *op. cit.*, p. 342.

their functions cause her painful and distressing sensations, which makes her think that they are all more or less diseased. She has lost all hope, and is persuaded that she will never recover. She is debilitated and suffers from indigestion, does nothing but lament and analyze her sensations, lives in a perpetual state of agitation, and does not sleep.

She was put under suggestive treatment, and fell into a light sleep. By its means sleep was restored, digestion re-established, and, above all, her attention was gradually diverted from her sufferings, real and imaginary, and in a few weeks she was cured.*

CASE 17.—*Acute Puerperal Mania.*†

Madame X—— has had several confinements in quick succession. The consequent exhaustion, and an attack of phlebitis with fever, are the chief causes of the malady. After the first sixteen days, during which her life was in danger, the excitement and tendency to violent and purposeless acts were no longer continuous, but alternated with comparatively lucid intervals. Dr. Godet found that he could sometimes cut short attacks by suggestion. He suggested that she should remain tranquil, and should not open her mouth. In this way he calmed her in a remarkable manner, and the attacks soon ceased, and she was cured.

CASE 18.—*Hysteria, Tendency to Tetaniform Spasms, Insomnia, Morphia and Chloral Habit.*‡

Madame K—— was admitted for treatment, suffering from the above conditions.

Hypnotic treatment combined with suggestion was employed to combat them. The narcotics were gradually

* Dr. Burckhardt, superintendent of the asylum at Préfargier, *Revue de l'Hypnotisme*, August, 1888.

† *Ibid.*

‡ *Ibid., loc. cit.*

discontinued, the spasms ceased, the natural sleep was regained by degrees, so that she was dismissed cured.

Braidism was tried without suggestion at first, but it only aggravated the symptoms.

CASE 19. *Moral Depravity in a Boy, Cured by Suggestion.**

On June 9th, 1888, M. F——, a youth aged 16, was brought to Dr. Voisin at the Salpêtrière. From the age of six or seven he had been incorrigible. Not only did he tell lies, steal, play truant, and behave ill generally, but he also tried to corrupt all the children with whom he came in contact. He became worse and worse as he got older, and was turned out of several institutions into which his mother had procured his admission. (Dr. Voisin describes some of his vices, which are unfit for repetition, and which prove the youth to have been utterly depraved and bad.) On examination he was found to have an internal squint of the left eye, nystagmus, and haziness of the cornea. The tongue deviated to the left. Otherwise he was well-made and healthy. He read with difficulty, and was very ignorant, though his memory and power of observation were sufficiently good.

Dr. Voisin endeavoured to hypnotize him, but was not successful until the third séance. Once asleep, suggestions of moral reform were made.

He began to improve at once, and by July 6th the youth was absolutely transformed. The wish to do evil first disappeared, and was then replaced by a desire to do right. His insubordination and disobedience had given place to a wish to please his mother. He expressed to Dr. Voisin the happiness he felt at being thus changed. He saw the doctor again on October 6th, six weeks after the discontinuance of the treatment, and the cure was maintained.

Dr. Bernheim and Dr. Liébeault gave several instances of cures of moral diseases. The former, after describing

* Voisin, *Revue de l'Hypnotisme*, November, 1888.

a somewhat similar case to the above, asks if he can be accused of tampering with the child's free-will because he has repressed his bad qualities (*op. cit.*, p. 357).

Dr. Kingsbury publishes two cases of moral obliquity in children which he has treated and cured by hypnotism (*op. cit.*, p. 191).

Cases Contributed by Dr. Van Eeden, of Amsterdam.

Case 20. *Neuralgia of the Neck and Left Shoulder. Paralysis of the Left Arm and Leg, of Syphilitic Origin.*

A. H——, aged 34, is a strongly-built man, with an originally good constitution. He became infected eight years ago. Thirteen months ago he was suddenly attacked with total loss of power in the left arm and leg.

On October 9th he consulted Dr Van Eeden, and was then suffering from severe pain in the neck and left shoulder, which had lasted two months. The pain prevented his sleeping more than an hour or two at night. He had partially recovered from the paralysis, but for five months no progress had been made. He was unable to fully raise the left arm, to open the hand, or extend the fingers. Antisyphilitic treatment had produced no effect for some months.

The patient was hypnotized in the usual way, and the second degree of somnolence (slight catalepsy) was produced. While in the hypnotic state suggestions were made to lessen the pain, and the rigidity of the semi-paralyzed limbs was relaxed by suggestions and active and passive movements. On awaking, the pain was found to be much relieved, and at night he slept for hours.

The treatment was continued daily for six weeks. By October 12th the pain had entirely disappeared, and he enjoyed eight hours' sleep every night henceforth.

Movements were constantly employed during the hypnotic state, and power gradually returned to the limbs, so that by November 8th the patient could extend all the

fingers of the left hand, and keep the arm in a horizontal position for a considerable time. When treatment was discontinued after six weeks he could make all the movements of the arm and hand freely. His walking power had also greatly increased.

CASE 21. —*Cephalalgia, Gastrodynia, Dyspepsia.*

The patient, a little girl of eight, is a delicate child, and has suffered from continuous headache, want of appetite, and pain in the stomach. She rises nearly every day with a bad headache, and twice or thrice a week she is obliged to stay in bed on account of the pain. The stomach pains occur irregularly, last only a short time, and are very severe. She never has had a good appetite. Once only has she been free from pain—about three years ago, for a fortnight.

On September 16th the child was hypnotized by Dr. Van Eeden for the first time. The sleep produced was profound, as is usual with children. In the first sitting the pain was quite removed by suggestion, and did not return for two weeks, though there was only one consultation. Since September 16th she has only twice had headache, and this was each time at once removed by suggestion. The child remains under treatment, as such cases necessarily require a long course. There has been no pain in the stomach since her first visit, the appetite is better, and the child's general health more satisfactory than it has been for years

CASE 22.—*Chronic Alcoholism.*

M. G——, a well-to-do man of 49, had for sixteen or seventeen years constantly drunk alcohol to excess. He has never during all that time given it up. On his best days he has only taken four to eight glasses of cognac, but mostly he has drunk twenty or more. He has had several attacks of *delirium tremens*, and his mental faculties are much deteriorated. He is unable to apply himself to any business requiring thought or attention, and is unable

to write his name. His face is covered with pustules of acne.

On September 27th he was hypnotized, and fell into a light sleep. Dr. Van Eeden suggested disgust for stimulants and increased strength of will. During the sleep the patient was persuaded to promise solemnly to leave off alcohol. He was also treated with arseniate of strychnia, four to eight milligrammes daily.

The treatment was continued daily for a week, then once a week for two weeks. After that no further suggestion was needed. From the time of the first sitting the patient took not a drop of alcoholic liquor, and though offered wine he refused it. Some restlessness and *malaise* were felt the first week. On October 4th he was able to write his name and to resume his business. Now (after two months) he feels quite well and strong, and is confident of being able to keep his promise. The acne is cured, and he sleeps and eats well. He continues to visit Dr. Van Eeden from time to time as a precaution.

In communicating these cases Dr. Van Eeden says 'they are selected from many similar ones. My results are the best in the treatment of various nervous diseases, but the cases are too long to report. I may add that according to my own experience the effect of psychical treatment is best seen in the following diseases: Neurasthenia, nervous debility, enuresis nocturna, slight or incipient brain-troubles, morphia habit, alcoholism, bad habits in children, hysterical paralysis, nervous dyspepsia, anæmia, stammering, chorea, sleeplessness, nervous asthma. Combined with systematic movements during the hypnotic sleep, the treatment is of effective service in paralysis caused by apoplexy or embolism, and in infantile paralysis (acute anterior polio-myelitis), if not of too long standing.'

Drs. Van Renterghem and Van Eeden contributed a valuable paper to the International Congress on hypnotism held in Paris, 1889.* In this they give very fully the

* 'Comptes-Rendus,' Octave Doin, Paris, 1890.

results obtained in their clinique in nearly five hundred *consecutive* cases. Many of these cases were not of a nature to benefit by any treatment, and most of them only came into these doctors' hands after other methods had failed. The reader of this paper must be favourably impressed by its candour and impartiality, and by the evident absence of exaggeration, which often seems inseparable from the advocacy of a new treatment, and which is certain to prejudice the professional mind against it. They attach much importance to the presence of a favourable environment and to the observance of *minutiæ*. They contend that by suggestion in the hypnotic state they can restore the balance of health by suppressing morbid action and by developing the *vis medicatrix naturæ*. They seek only to obtain the lighter grades of hypnosis in order that there may be no possible interference with the patient's free-will or individuality.

Drs. Van Eeden and Van Renterghem have practised treatment by suggestion among the upper and middle classes of Amsterdam for three years, during which time they have applied the system in several hundred cases. They were both previously for many years in ordinary practice, and their testimony to the value of hypnotism and suggestion is therefore of great value.

In dipsomania they have been very successful, and also in the treatment of bad habits and perverted instincts.

In affections of the genito-urinary organs they have achieved good results, and also in many forms of dyspepsia and intestinal trouble. In morphinomania they have been successful when they have produced somnambulism.

Like all physicians who have tried hypnotic suggestion in rheumatic affections, they express themselves pleased with the results, and they attribute the beneficial effect partly to the relief of subjective symptoms, such as pain, which depress the vitality, and partly to the regulative action it exercises over the circulation and secretions. They mention an interesting case of hystero-epilepsy and

spontaneous catalepsy of several months' duration initiated by the experiments of a public lecturer on hypnotism. The young man was speedily cured by a course of medical hypnotism.

From August, 1887, to June, 1889, they treated 414 persons by hypnotic suggestion—219 men and 195 women. In respect to their susceptibility they found as follows: uninfluenced, 15; light sleepers, 217; profound sleepers, 125; somnambulists, 47. As regards results they give the following figures: 53 discontinued treatment after the first or second visit, 71 were not improved, 92 improved, 98 greatly improved, and 100 were cured.

They agree with Dr. Forel that every person in sound mental health is susceptible to hypnotism under favourable conditions. The difficulty being to discover the conditions necessary in each individual case, therein lies the opportunity for exercising the physician's tact and *savoir faire*.

Their success has been chiefly with the neurosis, but they give particulars of several cases of organic disease which have been benefited or cured. Among these are one case of right hemiplegia with aphasia of three months' duration (cured); four cases of hemiplegia (much improved); one case of paraplegia with loss of control over the sphinctus (cured). In two cases of Bright's disease they effected great improvement, and suggestion seemed to stimulate the kidneys and relieve the œdema. In many of the slighter forms of mental disturbance they have been very successful. In epilepsy they have been unable to do much good.

CASE 23. *Neurasthenia with Deficiency of Saliva and Constipation for Thirty-five Years, Cured by Suggestion.**

Madame V——, aged 55, consulted Dr. Burot in August, 1888. She had for many years carried on the business of

* Reported by Professor Burot, of Rochefort, *Revue de l'Hypnotisme*, December, 1888.

weaving hemp, and it had been her habit to moisten the thread with the saliva. When about twenty years of age this secretion showed signs of drying up, and at the same time obstinate constipation appeared. She lost her appetite and became anæmic, constantly drowsy, extremely weak and feeble, and altogether a confirmed invalid. At forty the change of life occurred, but it made no improvement in her health, which became worse and worse.

Dr. Burot found her suffering from pains all over the body, general *malaise* and anæmia. The tongue was red and dry, with prominent papillæ. There was great dryness of the mouth, very deficient digestion, and obstinate constipation. The stools were infrequent, and their passage caused intense pain. The dryness of the mouth often prevented sleep. Dr. Burot hypnotized her and suggested increased flow of the digestive secretions, and at the same time gently rubbed the salivary glands and the abdomen.

After a month's treatment the patient was cured. The mouth became moist, the saliva abundant, digestion easy, and the bowels regular and comfortable. At the same time the general health was re-established, and she grew stouter and quite strong.

CASE 24.—*Confinement.**

Professor Ramon Cajal, of Barcelona, reports a case in which he abolished the pains of labour, without in any way weakening the power of the uterine contractions, by hypnotic suggestion. The woman had been frequently hypnotized previously, and was the mother of five children. The labour was extremely rapid (occupying less than half an hour) and was quite painless. On the fifth day she resumed her household duties, and in a fortnight was quite well. Her previous confinements had all been tedious.

* Reported in *Brit. Med. Journal*, Oct. 9th, 1889

CASE 25.—*Functional Dumbness with Melancholy, Cured by Suggestion.*

J. D——, aged 36, was born of healthy parents, and was well and strong until her twenty-fifth year, when she fell suddenly ill. After a violent attack of hysteria, during which she uttered piercing cries, she became gradually perfectly dumb, then indifferent to her surroundings, and finally extremely feeble in body. After a course of treatment at a spa her health became re-established, but she remained mute in spite of all attempts to make her speak.

This condition had continued for ten years when Dr. Velander first saw her. She heard and saw perfectly, but she made no attempt to utter a sound, and she was also in a state bordering on melancholia. He hypnotized her, and she at once fell into a state of profound somnambulism.

In this state he tried in various ways to make her speak, but her lips never moved until, after an hour of fruitless effort, he ordered her to open the mouth, and he manipulated the tongue with a considerable degree of force, and told her he had broken the strings which tied it and that she could speak.

After a few minutes' friction of the temples she actually did utter a few words in a faltering and husky voice. She returned for treatment daily, and in two weeks, Dr. Velander says, he had the pleasure of sending her home perfectly cured, not only in speech but in spirits.*

Dr. Velander reports having treated over six hundred cases by the Nancy method, and testifies to his satisfaction with the results. His experience tallies with that of other observers, for he finds it most successful in pains in general, neuralgia, sleeplessness, incipient melancholy, dysmenorrhœa, amenorrhœa, incontinence of urine, sleep-walking, acute and chronic rheumatism, nervous amblyopia, vicious habits, and dipsomania.

* Dr. Velander, of Yonkoping, Sweden, contributed a report of this case to the congress.

CASE 26.—*Functional Paraplegia, and Hemi-anæsthesia, Treated by Suggestion.**

The patient had had a fall, and as a result had been paralyzed for twelve months. The legs were flaccid and absolutely powerless, and the nurse always had to arrange the feet. The muscles were so atrophied as to be hardly distinguishable.

The patient on being hypnotized at once fell into a profound sleep. While in this state the leg was raised in a horizontal position, and the suggestion made that it must remain so. It remained extended for a few moments, and thus afforded evidence of the functional nature of the disease.

Suggestions of ability to stand, raise the legs, cross them, etc., have resulted after ten sittings in power during the waking state to lift the legs together, cross one leg over the opposite knee, and to stand easily for a short time. The chronic constipation has yielded, and the spinal pains, which were very troublesome, have disappeared.

The urine was formerly retained, but the retention was much relieved. The leg muscles greatly increased in size and became firm under the touch. The patient was made to repeat the suggestions after the physician, and this plan was found to increase their efficacy.

Dr. Osgood in referring to this case later, says that the improvement has been maintained, and that the patient can now walk.

CASES 27 TO 30.—*Four Cases of Epilepsy, Treated by Dr. Edgar Bérillon.*†

1. M. N——, aged 35, has had frequent fits, occurring almost without warning, so that she has often fallen in the streets. The attacks have been violent, and during them she has foamed at the mouth and has bitten her tongue.

After hypnotic treatment the fits ceased and did not

* *Boston Medical and Surgical Journal*, June, 1890.
† *Revue de l'Hypnotisme* October, 1890.

reappear for twelve months. Then she had three attacks one after the other, and she again applied for treatment. She was again hypnotized, and up to the time of the report (two months) she had had no relapse.

2. Madam A——, aged 28, came under treatment. Since twelve years of age she had wetted the bed at night, and at seventeen she began to have nocturnal crises during sleep. In the course of these attacks she used to foam at the mouth and bite her tongue. Her husband said that her sleep was disturbed by nightmare, and that she ground her teeth. When she became enceinte she had violent attacks of convulsions. When she came under treatment the skin of her chest, arms, and hands presented numerous marks of vitiligo. The patient had been under treatment at St. Anne's for five years and had taken large quantities of bromides without benefit.

Two months of suggestive treatment completely altered all these symptoms. The nightmare and grinding of the teeth disappeared, she lost the stupid and indolent aspect she wore before the treatment, and became bright and intelligent-looking. At the same time the vitiligo disappeared by degrees. The cure had continued up to the time of the report (five months).

3. J. S——, a youth of 18, of neurotic constitution and family, had suffered from choreiform movements in his limbs, and especially his arms, since infancy. When six years of age he had been bitten by a dog, and from that time he had been subject to attacks of *petit mal* during the day and of major epilepsy at night. During the latter he used to bite his tongue and lose consciousness. He looked idiotic when he first appeared, and his face was pale and bloated. His disposition was mischievous, disobedient, and brutal.

He was put under hypnotic treatment, and was hypnotized once a week for several months. The treatment produced a speedy improvement in all the symptoms; the attacks ceased both by day and night, and, *pari passu*, his character altered for the better. His intelligence awakened,

and he became able to go about alone, and to occupy himself with employments which were formerly quite beyond him. The treatment being discontinued for a month led to a return of nocturnal attacks, but a renewal of the suggestions again caused these to disappear.

4. Mdlle. P——, aged 12, came under treatment exhibiting spasm of the eyelids. Her disposition was extremely perverse and unmanageable. In the month of May she had crises every four or five days, during which she lost consciousness and passed water involuntarily. After the attacks she used to remain completely blind and deaf for a considerable time. The child from being bright and intelligent had become dull and apathetic, and had been obliged to leave the school where she had formerly been a promising scholar. The case had been seen by many doctors, who had diagnosed epilepsy, and had prescribed bromides.

A few sittings sufficed to bring about a cessation of the attacks and a return to the previous mental condition. Dr. Bérillon, in view of the very rapid recovery, is inclined to consider this a case of hystero-epilepsy.

Case 31.—*Intermittent Fever, Cured by Suggestion.*

A young man, a hystero-epileptic, came under treatment at the clinique at Amsterdam suffering from quartan ague. He was treated for six weeks by quinine and arsenic, but without benefit, and then begged to be hypnotized.

He was hypnotized during the apyrexia, and at once became somnambulic. But the attack came on as usual, though suggestions were made at four sittings. He was then told to come again for treatment a quarter of an hour before the access of the cold stage, which generally lasted about an hour. He was hypnotized, and suggestions were made for the space of an hour against the occurrence of the symptoms. They were successful, and the usual time for the attack was passed. The patient was left sleeping, but the doctors began to attend to their other patients.

Left alone, the patient soon began to shiver, and the algide stage made its appearance with blueness of the nails, shivering, and restlessness. The quieting suggestions were recommenced, and were continued for half an hour with energy and perseverance. Gradually the symptoms disappeared and the attack was aborted. From that time there was no return of the fever.

(This success encouraged the writers to undertake the treatment of a lady suffering from obstinate remittent fever of South American origin. The patient was only slightly influenced, and the suggestions did not exert any effect on the course of the disease.)

CASE 32.—*Syphilitic Retinitis and Optic Neuritis.*

Emile X——, clerk, contracted syphilis in 1875. He was treated in the ordinary way, and apparently cured. In 1879 he experienced some impairment of sight, which was rectified by the use of convex glasses. In 1881 cutaneous eruptions made their appearance, but his sight continued good for two years longer. Towards the end of 1883 he began to find it difficult to read small print, and to be troubled by sparks and flashes of light before the eyes. From this time his sight rapidly deteriorated, in spite of treatment by mercurials, iodides, strychnia, electricity, etc., at the hands of Prof. Fuchs, of Vienna, Prof. Huel, of Liége, and other well-known oculists.

In December, 1885, he was unable to see how many fingers were held up at a greater distance than 30 cm. with the left eye, and was unable to count them at any distance with the right eye.

In the left fundus there was a central scotoma, and the right eye had lost the inner half of its field of vision.

The right eye, which afterwards became the better of the two, appeared to be atrophic, its arteries were contracted to half their proper size, and the veins were also diminished in calibre.

Dr. Delbœuf recognised this case as one in which

crucial experiments might be made in gauging the action of hypnotic suggestion, and in January, 1887, he began to hypnotize the patient, Professor Nuel and Dr. Leplat assisting him and conducting the examinations and tests.

The treatment lasted from January 17th to July 6th, 1888. During this period the patient was hypnotized forty-six times, and each sitting occupied from one to two hours. There was very marked improvement at the end of the treatment, and it is evident that hypnotic suggestion was the curative agent. Emile X—— could count the fingers at a distance of three metres with the right eye, and at one metre with his left He was not able to read, but could take notes, see the time on his watch, distinguish colours, and walk without being led. He had lost his strabismus, and could see both eyes when he looked in the glass, showing that his sight can become central. The improvement has been maintained up to the present time, though the treatment has not been resumed.

The suggestions were made by Dr. Delbœuf, and were always directed towards a definite object. For instance, if the patient could count the fingers at 1 metre before sleep, he was told during sleep to count them at 1.60 On awaking, he would probably be able to count them at 1.30, and this gain would be maintained until the next sitting, when the distance would again be increased.

At other sittings the experiments were confined to attempting to affect the visual field. In one sitting, for instance, its supero-temporal diameter was extended from 75°-20 to 90°-10. In three days it had fallen back to 85°-20, but suggestion brought it to 90°-5.

In addition to being almost blind, the patient, when he came under treatment, was affected with great mental depression and haunted by continual thoughts of suicide. He was also an excessive smoker. Two or three suggestions entirely removed this mental condition, and also completely corrected his desire for tobacco.

CASE 33.—*Epilepsy.**

The following case had been under my care as an out-patient since March, 1888. She had been a regular attendant, and although there was considerable improvement under the continuous exhibition of bromides, the case became stationary, and no further progress was noted. Indeed, the mental condition began to excite alarm in the minds of her relatives, as she became morose, irritable, would sit in a corner for hours, and for a long time past had given up all interest in domestic affairs.

Oct. 2nd, 1890.—E. K——, aged 20, a tailoress, had epileptic fits since childhood. No other member of the family is the subject of fits; there is no history of insanity or other neurosis. The fits generally occur about the monthly periods, and are often exceedingly severe

This morning her mother brought her as usual, and I suggested that hypnotism might be of use in improving her mental condition. I then hypnotized her to the second degree, and told her mother to bring her again in a day or two.

Oct. 7th.—Her mother brought her to-day, stating she had been suffering excruciating pain from neuralgia in the *right* side of her face, so much so that they had had no sleep with her for two nights. I again hypnotized her, suggested freedom from pain, and on awakening the pain had entirely gone. She never had another symptom of neuralgia until February 14th, when she had a slight attack in the *left* side of the face, which at once yielded to hypnosis and suggestion.

From this time to May, 1891, I hypnotized her regularly at intervals of a week, suggesting improvement in her health, that she would become stronger, brighter, more cheerful, and would occupy herself in household duties.

Her mother now states that she has steadily improved in her mental condition since she has been hypnotized; that she soon began to do work about the house, a thing

* Contributed by Dr. Outterson Wood.

she had not done for years before; that, instead of being a source of care and anxiety on account of her irritability and violence, which led to direct assaults upon those around her, she is now cheerful, singing about the house and taking her share of the work. Her fits are less frequent, decidedly less violent, and she is able to go to dances and enjoy herself.

* * * * * *

I propose here to record a few cases from my own practice which will perhaps prove interesting.

CASE I.—*Insomnia.**

A. T——, aged 35, electrician, came to me on February 1st complaining of sleeplessness. It seemed to date from a severe accident from the explosion of a torpedo three years before. He is a man of exceptional mental activity, and the want of sleep had induced much nervous depression and dyspepsia. At whatever time he went to bed he awoke at 3 A.M., and was unable to sleep again. He was readily hypnotized, and a slightly lethargic condition was induced. Suggestions were made that he would sleep well that night and would not awake at 3 A.M., but that if he did awake, he would be able to sleep again. February 2nd, he reported that he had awoke the previous night at the usual hour, but had soon dropped off asleep again. The treatment was repeated. February 3rd, he had been awakened the previous night by a noise in the street about 4 A.M., but had fallen asleep again. 5th, he reported having had two good nights. One repetition of the treatment completed the course, and since that time he has remained a good sleeper, getting an average of eight hours' sleep every night. His general health has improved to a corresponding extent.

This case presents several points of interest. Though the patient was only affected to a slight degree by hypnotism, suggestion was successful in breaking a morbid habit

* This case and several of those following were published in the *Lancet*, August 24th, 1889.

of three years' growth in less than a week. Mr. T—— tells me he never lies down during the day, and that while lying down in my consulting-room he was completely conscious, but felt comfortable and disinclined to move. He was able to open his eyes, but they felt somewhat heavy, and he experienced reflex warmth in any part where I placed my hand and 'suggested' it.

Case 2.—*Neurasthenia.*

R. H——, an American, aged 43, press agent, consulted me in June, 1889, for pains in the back, depression of spirits, languor, loss of appetite, constipation, muscular weakness, dull pain all over the head, but worse in the forehead and on stooping. He had worked very hard all his life at newspaper editing, and he looked at least ten years older than his age. Physical examination revealed no organic disease, but the heart's action was rapid and feeble, and he had some tenderness over the dorsal region of the spine.

He was easily hypnotized, and fell into the second stage. The treatment consisted in rubbing his spine, loins and abdomen, and suggesting increase of strength, absence of pain, and regular action of the bowels every morning. The patient improved rapidly under treatment, and was able to return to America after twenty operations, quite set up and in good spirits.

This seems to me a typical case of breakdown in an overworked man of nervous temperament. I allowed him to remain in the hypnotic state an hour daily, and no doubt the rest was an important factor in the cure. He was unable to open the eyes, but could raise or depress the arms at will.*

Case 3.—*Writer's Cramp.*

Alice N——, clerk, aged 25, came under treatment in

* Two years afterwards (July, 1891) this patient again came under treatment for influenza. He had continued perfectly well, and able to work ever since the treatment. He made an unusually rapid recovery from the influenza under ordinary treatment aided by hypnotism.

March, 1889. She had had much writing to do, and since three years had felt symptoms of loss of power in the right hand and control over the pen She had been treated at a general hospital by galvanism for three months without benefit, and had become so much worse that she had been obliged to leave the desk and engage in other occupations. She was also unable to use the needle for any length of time on account of cramp supervening. After writing two or three lines, she experienced crampy pains in the thumb and forefinger and in the flexor muscles of the forearm. After a few lines, spasmodic jerking of the thumb was observed, and this increased—together with the pains—to such an extent, that in less than a minute the patient declared her inability to hold the pen any longer. There was marked tenderness and soreness on pressure over the median and musculo-spiral nerves. She was hypnotized, and fell into the third stage. In that condition the muscles were rubbed, the joints exercised, and suggestions of improvement made.

After a few minutes' rest the patient was directed to again write, and she found the fatigue and cramp had disappeared and did not return until she had written half a page. She came regularly for treatment three times a week for two months and at the end of that time was able to return to her original post quite cured.

She was a good example of the second or cataleptic stage (Liébeault), which she never passed beyond. She lay apparently fast asleep, was unable to open the eyes, and retained the arm rigid in any position I placed it. But she remained vividly conscious, and was able to repeat the conversation going on around her, and would laugh, protest and struggle when told she was unable to move the arm. This is one of five cases of occupation neuroses which I have treated by suggestion. One case was not susceptible to hypnotism, but all the others improved rapidly, and were cured. I should certainly always combine it in these cases with local massage,

though I believe at Nancy they use no treatment but verbal suggestion.

CASE 4.—*Tabes Dorsalis.**

H. F——, aged 47, a valet, came under treatment in March. He was pale, anæmic and emaciated, and had an expression and appearance of great depression. His family history was good. He had never drunk to excess or had syphilis, and was married and had a healthy family. In 1870 he was a soldier in the German army, and was wounded severely in the leg, but made a good recovery. In 1884 he had an attack of what he calls blood-poisoning, but what appears to have been typhoid fever, on the Continent, and he has never been really well since. In 1888 he noticed some failure of sight, and at the same time a numbness of parts of the skin of the back and chest became apparent. His bowels became constipated and only moved by the aid of purgatives, which, however, caused so much colicky pain that the action was always accompanied by vomiting and followed by prostration, which kept him confined to bed for the following twenty-four hours. He suffered from frequent sharp 'lightning' pains down the arms, and especially the legs, and from neuralgia in the chest and back. His tongue was dry and coated; he had no appetite, and there was great mental depression. In twelve months he had lost two stone in weight, was unable to walk more than half a mile, and always felt tired. The pupils were contracted and almost insensible to light, and there was almost complete atrophy of the right optic nerve, with partial atrophy of the left. The reflexes were absent, but there was nothing ataxic in his gait. Extensive patches of local anæsthesia occupied almost the whole of the left chest and back, and also the skin of the upper lip and nose. He was hypnotized, and fell into the third stage.

* This case is published in the 'Comptes Rendus' of the first International Congress on Hypnotism.

Suggestions were made as to regular and painless action of the bowels, absence of pain, etc. The next day he had a slight motion (the first natural one for three months) without much pain, and felt better generally. Improvement was steady and constant, and in two weeks he was able to walk two or three miles without fatigue, was free from pain and discomfort, and the bowels were regular.

With the exception of a slight relapse, following a bad chill in June, he has continued fairly well and comfortable. The disease no doubt progresses, but it does so slowly and painlessly. On finding such great success followed suggestions, I was induced to try if they had any influence on his sight, and one morning suggested increased warmth and circulation, followed by improved vision keeping my fingers over the eyes for three or four minutes. The effect was somewhat surprising, for the following day he was able to read ordinary print at a distance of six inches with his left eye, and to distinguish the hands of the clock at two feet with his right a wonderful improvement on his performance the previous day, when he could barely make out large type (D = 4) with the left eye, and could not distinguish the nature of any object with the right. But the improvement was only temporary, and in spite of repeated suggestions his sight had relapsed to nearly its former condition within a week. He tells me a somewhat similar result followed some months previously the administration of strong doses of strychnine by hypodermic injection. Still he invariably sees more clearly and distinctly after being hypnotized than before, and whereas his sight was steadily deteriorating previous to this treatment, it is now no worse than it was six months ago.*

Probably the explanation of the sudden improvement is

* This incident throws some light on cases of 'miraculous' recovery of sight which one reads about as occurring at Salvation Army gatherings, etc. In purely hysterical cases no doubt permanent cure is sometimes brought about by suggestion, aided by expectant attention, when the nervous system is thrown off its balance by enthusiasm and by the impressiveness of the surroundings—is, in fact, in a condition analogous to hypnosis. One knows that many of such cases relapse in a very short time when the effect of excessive nervous stimulation subsides.

that suggestion had powerfully stimulated the healthy nerve elements to abnormal activity, which, however, could not be maintained. I may add that suggestion did little or nothing for the local anæsthesia, but that symptom was greatly modified by a course of suspension under Dr. de Watteville.

This patient was conscious of what went on around him, and by an effort of attention could follow the conversation and repeat its purport, but voices sounded indistinct and far off, and he felt very disinclined for exertion. It is the stage of automatic continuative movement, as shown by a simple experiment. If I give his arms or hands a few turns and tell him to go on with the movement, he is unable to stop it, but continues the action indefinitely. He answers questions addressed to him, not only by me but by bystanders, and he awakes spontaneously in about fifteen minutes. If told to awake at the end of a certain number of minutes, he will do so almost to a second.

CASE 5.—*Torticollis, etc.*

W. T——, aged 34, consulted me in March, for rheumatism of the muscles of the neck, shoulders, and back, She was a rheumatic subject, and the present illness dated from two weeks previous, when she had been exposed to wet and cold. She had been unable since that time to dress or undress herself, and the least movement of the head or upper extremities caused pain. The muscles were tender to the touch, but there was no swelling, or constitutional disturbance. She was advised to try hypnotism, and, with some reluctance, as she said she did not believe in it, she consented. In less than a minute she slept profoundly, and while in the sleep the affected muscles were well rubbed, and the head turned in different directions. Within five minutes she was awakened and told to move her head and arms freely. This she did without pain, but said there was some stiffness remaining. The stiffness continued until the following morning, when it dis-

appeared and did not return. Faith had nothing to do with this result, for even after the relief was given, the patient refused to believe it could be anything but temporary.

This patient appeared entirely unconscious of the conversation going on around her, and of external impressions generally, except such as were rendered apparent to her by my suggestions. She was insensible to pain, as shown by her perfect tranquillity when I moved her head, a movement she had previously been unable to endure. Her eyeballs were turned up and the conjunctivæ were nearly insensible to touch, but the pupils readily contracted to light. She took no notice of any sound except my voice, and did not appear to hear if anyone else addressed her unless I told her to answer. Her pulse and respiration were slightly slower than in the waking state, and her aspect generally resembled that of profound natural sleep. The knee-jerk was increased by paresis of the inhibitory centre, until I told her to control it, and then it became less than normal.*

She was not susceptible to post-hypnotic suggestions regarding actions or conduct, nor to suggested hallucinations or delusions of the senses.

Case 6.—*Headache following Injury.*

E. H ——, post-office clerk, aged 32, came under treatment in July. She had been knocked down by a bicycle three weeks previously, and had fallen with her head against the curbstone. Her back also had been strained, and she had pain in raising the left arm.

She was anæmic, and of neuropathic constitution. Pressure on the occipital and right parietal region increased the pain, which, however, had never left her since the accident. She had been stunned, but not rendered actually unconscious. She was one of the most susceptible subjects I have ever seen, and within half a

* Dr. Myers tells me he has seen the knee-jerk apparently suppressed by suggestion in Bernheim's *clinique*.

minute of being told to look at my fingers and go to sleep, her eyes closed, and she fell into a state of profound somnambulism (6th stage). Her head was gently, and the shoulders somewhat more vigorously rubbed, and suggestions were made tending to the removal of pain and shock. In ten minutes she was awakened by being told to count up to twenty and awake when she got to the end —a good method, as it avoids giving a sudden shock, and leads up to the change of state gradually. She left the house absolutely free from pain, and there has been no relapse In a profound somnambulist of this type, the most advanced phenomena of hypnotism are demonstrable. She is in the same condition, apparently, as case No. 5, but differs from her in being susceptible to post-hypnotic suggestions negative hallucination, delusions of the senses, automatic actions, etc. It is important, therefore, to safeguard such a subject by telling her she is not to be hypnotized except for medical purposes, by a medical man, at her own request.

Case 7.—*Chronic Diarrhœa.*

General B——, aged 72, came under hypnotic treatment on April 3rd. He had previously been attended by me for chronic diarrhœa, but without much effect, and the malady was generally considered quite incurable. It dated from the time of the Crimean War, and since then he had never passed less than four motions a day, and these were always thin and watery. Any excitement or emotion aggravated the condition, and the day previous to my visit he had been moved twelve times. He is a man of exceedingly nervous type, but enjoys fairly good general health for his age. Hypnotism produced very much the same effect on him as on the patient in Case 1 —a slight lethargy. In this state his abdomen was gently rubbed and the suggestion made that he should in future have but two motions a day, and that they should be properly formed. On April 4th the patient reported three

motions during the last twenty-four hours. He was again hypnotized, and the same suggestions were repeated. On the morning of April 5th he passed the first formed motion he had had for over twenty years, and from that time his bowels have continued to act regularly twice a day and the stools have been well formed and natural.

CASE 8.—*Paroxysmal Sneezing.*

F. H——, 38, lady's-maid, suffered during the summer of 1888 from hay-fever, and the fits of sneezing continued into the autumn, so that when I saw her on October 4th, she told me that every morning on awaking she was seized with a paroxysm, which lasted about an hour, during which time she sneezed about forty times, and discharged copiously from the eyes. In addition to this, for a few days she had suffered from pain after eating, flatulence, and constipation. She was hypnotized and at once fell into a profound sleep (Liébeault's sixth stage). Her nose was rubbed, and the suggestion made that she should sneeze no more. The stomach was also rubbed, and the suggestion made for the regulation of the digestive functions. There was no need to repeat the operation, for the paroxysmal sneezing ceased forthwith, and the digestion became easy and painless. There has been no relapse.

CASE 9.—*Chronic Constipation.*

Mr. H——, aged 39, solicitor, of lymphatic temperament, consulted me in May, 1889, for constipation. He had led a very sedentary life, and was in the habit of taking a good deal of opening medicine. His appetite was capricious and his tongue furred. He was hypnotized and rapidly fell into the third stage. The abdomen was well rubbed and a regular motion suggested daily after breakfast. The treatment was almost immediately beneficial, and six operations sufficed to establish a regular after-breakfast habit of relief.

CASE 10.—*Supra-orbital Neuralgia.*

E. H——, a stockbroker's clerk, aged 21, came to me in July suffering from neuralgia of ten days' duration. The pain came on in paroxysms which were worse at night, and it was chiefly felt over the right eye, where there was extreme tenderness. But the pain radiated over the anterior part of the head, and sometimes affected the eyes. He was out of health generally and very depressed. He fell into the second degree of hypnosis, and the treatment consisted in rubbing and suggestions. He was allowed to remain in a drowsy state for half an hour, and was then aroused. He said he felt much better, and he passed a fairly good-night. Three operations effected a complete cure. It was his first attack of the kind.

CASE 11.—*Spinal Irritation.*

Mrs. F——, aged 37, came under treatment in April, 1889. She had suffered since the birth of her first child, ten years before, from pain and discomfort in the spine, referred especially to the lumbar region. She was unable to walk without great fatigue, and standing was a misery to her. She was anæmic, of constipated habit, and with general depression of vitality. Manipulation down the spine caused pain, and there was frequently numbness of the extremities with twitchings. Her mental condition was one of depression and great nervous irritability. She was susceptible to the third degree, and began to improve under suggestion almost immediately. The case, being of very chronic nature, required a longer attendance than usual, and she occasionally comes up for a repetition of the treatment. She is greatly improved in appearance, the irritability of temper has subsided, and she can walk two or three miles, and stand about in picture galleries and exhibitions, as well as most ladies, without undue fatigue.

CASE 12.—*Functional Heart-trouble.*

H. L——, 23, consulted me in November, 1888, complaining of palpitation on exertion and on lying down at night, shortness of breath, giddiness and frequent attacks of fainting coming on without any warning. Examination of the heart revealed no organic disease, and all the organs seemed healthy. She had suffered a good deal of anxiety of late, and this was apparently the cause of her illness. She was treated on general principles with iron, nux vomica, digitalis, etc., but she made little or no progress, so in January, 1889, I suggested hypnotism and soon induced the third degree. She began to improve almost at once under suggestions, directed to the over-action of the heart, and after ten operations, spread over a period of three weeks, was relieved of all her symptoms

CASE 13.—*Symptoms Dependent on Mitral Disease.*

Miss H——, aged 32, has been under my treatment on and off for several years, and after a long spell of literary work and late hours she consulted me in March, 1889, complaining of palpitation, frontal headache, loss of appetite, nausea, constipation, debility, swelled feet and legs, and especially of attacks of faintness coming on without apparent cause. She has mitral regurgitation consequent on rheumatic fever ten years ago, and her pulse was very weak and rapid (104). She was hypnotized and fell into profound somnambulism. Reduction in the rapidity of the heart's action with increase of force was suggested, and the pulse after a few minutes became reduced to 87, and of firmer character. Suggestions were made corresponding to all her symptoms and she was allowed to rest for nearly an hour. On awaking she at once said she felt much better. The nausea which had troubled her incessantly for several months had disappeared, and she felt no discomfort from her heart. On going home she slept well that night and the improvement was maintained the next day. The following day she came to me complaining of a fresh

attack of palpitation, and she was again hypnotized, with the same result as before. The operation was repeated three times, with an interval between each visit of three days, and she was then quite free from pain and discomfort. During the hypnotic treatment I purposely refrained from giving medicine, but afterwards I prescribed *strophanthus* for the swelling of the feet, which had not improved much under suggestion. This medicine almost completely removed that symptom in a couple of weeks. She had no more attacks of syncope after the first operation.

Case 14.—*Nocturnal Enuresis.*

Thomas L——, aged 13, was brought to me in June, 1889, for this trouble. His parents had never succeeded in breaking him of the habit, though they had tried many different modes of treatment. He was fairly well-nourished, intelligent, and of nervous temperament. He had no organic lesion of any kind, and the malady evidently depended on functional weakness and bad habit. He was hypnotized daily for six days and then once a week for six weeks, and he always fell into a profound sleep. He wetted the bed once the first and once the third week, while previously he had rarely gone more than two consecutive nights without doing so. After that there was no return of the trouble, but he wakes up every night about 12 and empties his bladder quite automatically. The boy's future was in danger of being compromised, as his parents were unable to get him into any public school. He is now at a large school and doing well. I told him he was to always wake at 12 and leave the bed, and the suggestion has acted excellently well.

Case 15.—*Gouty Sciatica.*

Mr. S. R——, a gentleman aged 81, has been for many years a patient of mine, and is subject to attacks of gout, which shows itself in various ways. On this occasion (July) it took the form of sciatica of the right side. There

was extreme tenderness along the whole course of the sciatic nerve, and the pain was very severe. The treatment I had previously adopted colchicum internally and poppy-head fomentations externally—was practised, but he continued to suffer much and to be unable to sleep, so on the third day I proposed hypnotism, to which he gave a ready assent. In a few minutes—using verbal suggestion and fixation of the eyes—he went off into a light doze, and in that condition his thigh was well rubbed and absence of pain suggested. The old gentleman remained in a somnolent state for about ten minutes, and awoke feeling somewhat relieved. He slept well that night, and the operation was repeated daily for three days, with the result that he was able to leave his bed within a week, whereas previously he had always been confined to it for three weeks by similar attacks. He is an extremely nervous and sensitive subject.

CASE 16.—*Chronic Rheumatism with Wasting of Muscles.*

Mary T——, aged 34, dressmaker, was sent to me in July, 1889, suffering from very intractable rheumatism of the right shoulder and elbow. It had lasted for three years and caused great pain on moving the arm. The illness had come on gradually and had resisted all treatment. The patient was somewhat anæmic, complained of constipation, and was kept awake at night by the pain. The deltoid and muscles of the arm were a good deal wasted, but gave a normal reaction to electricity.

She at once fell into the third stage of hypnosis, and in this state her shoulder and elbow were rubbed and warmth and absence of pain suggested. She was able on being aroused to move her arm almost to a right angle with her body without pain, which she had not previously been able to accomplish. She remained under treatment for three weeks, and at the end of that time returned to the country absolutely free of pain and able to move the arm freely in any direction.

CASE 17.—*Nervous Dyspepsia.*

Miss L——, aged 32, consulted me in February, 1889. She had suffered more or less all her life from indigestion. She was very thin, and her complexion was yellow and spotted with papules of acne. She complained of constant pain over the epigastrium, which was tender on pressure, increased by food, and accompanied with 'sinking' heart-burn and palpitation. Her circulation was deficient, and she had always cold hands and feet; there was frequent headache and neuralgia, generally in the frontal region. She slept badly at night and was troubled with uncomfortable dreams. She felt languid and despondent and had no aptitude for settling to any occupation. Her condition was becoming worse, and she had been under all sorts of medical treatment for her digestion since childhood. Her teeth were sufficiently good for mastication, the bowels were constipated, and the tongue was moist but furred. There were no symptoms pointing to disease of any organ, and it was evident the malady was purely functional.

She was hypnotized, and the second degree of hypnosis was induced. In this condition the stomach and abdomen were rubbed and warmth suggested. Comfortable sleep and improved appetite were promised, together with regular action of the bowels, and general increase of strength and energy. The patient was on very rigorous diet, and this was somewhat modified and enlarged. Improvement in her condition became visible after two or three days, and the treatment was repeated daily for ten days, and then at longer intervals for a month. At the end of that time she was better than she had ever been previously. She slept well, ate with fair appetite, and enjoyed life. The improvement has been maintained and the morbid condition seems permanently cured.

CASE 18.—*Amenorrhœa.*

E. S——, aged 24, consulted me for various symptoms dependent on amenorrhœa in May, 1889. She was pale, somewhat anæmic, ate and slept fairly well, but suffered

from nearly constant frontal headache. She had seen nothing for five months, and thought the cause of this was a chill incurred at the time of the last period. She had taken iron and quinine and used hot baths without effect. She was hypnotized, and at once fell into a profound state of somnambulism. I rubbed the abdomen, and suggested that the period should come on the following week, without pain, and should last three days. These suggestions were repeated daily, with the addition that the day of the week (Friday) was suggested after the second visit. Early on the following Saturday morning the function was re-established and lasted three days.

CASE 19.—*Functional Dysmenorrhœa.*

A. T , aged 21, clerk, came under treatment on October 10th, 1888. She suffered much from painful menstruation, and has done so since the function became established four years previously. The period was always delayed three or four days, and was scanty and light-coloured. It lasted about three days, and was attended with excessive backache, languor, and frontal headache. She suffered also from gastralgia, constipation, and flatulence. After treating her for some time on general principles, she was hypnotized on March 15th, immediately after a period, and at once fell into a profound sleep (Liébeault's sixth stage). Suggestions directed to the painless performance of the digestive and menstrual functions were made and were repeated two or three times a week for four weeks. The following period appeared on the twenty-ninth day, and was attended by but little pain or inconvenience. She was told to return in three weeks, and suggestions were then made regarding the next period. This came on twenty-seven days after the last, and continued for four days. It was more abundant and healthy, and perfectly free from pain. Since that time she has continued regular, and there has been no dysmenorrhœa. The digestion soon became

painless and natural, and the general health shows great improvement.

CASE 20.—*Post-Parturition Troubles.*

F. Y——, aged 43, was confined of her fifth child in January, 1889. She was anæmic, and had suffered during her pregnancy from severe colicky pains, constipation, hæmorrhoids and occipital headache. Delivery was tedious, and there was much hæmorrhage from the relaxed and insufficiently contracted uterus; and the placenta had to be removed, as it remained adherent. The patient complained greatly of headache and restlessness after the confinement; the uterus contracted but slowly, and there was also much pain, in spite of hot douches and ergot. She was hypnotized by being told simply to look at my outstretched fingers and go to sleep. In a few minutes the eyelids began to twitch, and on closing the eyes she sank into a comfortable sleep, which lasted for four hours. She awoke much refreshed, and without headache. The operation was repeated daily for four days, and she made an unusually good recovery.

CASE 21.—*Dipsomania.*

L. G——, a gentleman of position, who was intensely anxious to be cured, was under my care during the month of January, 1889. His case was a bad one, and for three years had been getting worse. Uncontrollable fits of craving for spirits recurred every two or three weeks, and indulgence for three or four days was followed by intense nervous depression. He was hypnotized twice daily, and like most of these patients, he proved a very susceptible subject. Suggestions were always made that he should look upon spirits and intoxicating liquors generally with dislike, and that he should have no craving or wish for them. Under this treatment his appetite soon became very good, he slept well at night, and recovered his spirits. In four weeks he was able to return to his family, and he writes at intervals, telling me that, in spite of some excep-

tional temptation, he has no inclination to taste alcohol or break his promise to me.*

CASE 22.—*Moral Breakdown.*

T. L——, aged 21, engineer, was sent to me for treatment by suggestion, by a medical friend, as all ordinary treatment, medical and surgical, had failed. Since early adolescence he had practised private vices, which had reduced him to a deplorable state of mental and physical weakness. He was easily hypnotized, and fell into the fourth stage of hypnosis. Suggestions were made directed to the reduction of morbid functional activity, and to increase of power of self-control. The patient, who thought himself on the verge of insanity, was a willing patient, and is now after five months a completely altered man. He comes to me at gradually lengthening intervals, and in that way any danger of a relapse is obviated until the influence of the habit is absolutely eradicated.

NOTE.—If hypnotism had done nothing more for medical science than bring such melancholy cases as the above within the scope of curative treatment, it would have conferred a lasting benefit on humanity. In even worse cases of perverted sexual instinct it is frequently successful, and Dr. Von Schrenk-Notzing of Munich, read before the International Congress notes on a case of this kind, treated by him with the happiest results. Modern medicine teaches us that these perverted instincts depend upon an hereditary or acquired morbid condition of the brain and spinal cord, and constitute, in fact, a psychical disease. Hypnotic suggestion seems to act by checking excessive functional irritability, and by developing and bringing into play the inhibitory action of the higher brain centres, which have either not developed or have undergone impairment.

It is absolutely necessary to gain the confidence of the patients in these cases and they must be carefully watched, as they are notoriously given to deception. But their confidence can be gained by judicious management, and then one is saved from the danger of allowing 'the wish to be father to the thought.'

CASE 23.—*Incipient Melancholia, with Delusions.*†

Mr. C. K——, an Englishman residing in Holland, consulted me in October, 1889. He had been hypnotized

* I consider that four weeks is altogether too short a time for cure in most cases. Here I was helped by the earnest efforts of an intelligent and trustworthy patient.

† I have recently heard from this patient that after six months' relief the trouble again returned, and that he was under the treatment of Dr. de Young, of the Hague, for it.

sixteen times by Dr. Van Eeden, and was beginning to get better. His age is 71, and in consequence of this and a history of excessive indulgence in spirits, I had grave doubts as to the treatment being of any avail. He is naturally a religious man, but for more than a year he had been tormented with blasphemous thoughts, which assailed him especially in the morning in waking, but which were never absent. These thoughts impelled him 'to curse God.' His dreams were full of the same idea, and in consequence of the strain on his mind his health was in a feeble state, and there was every appearance of a speedy breakdown. He had almost continual pain in the occipital region, with giddiness on movement, and frequently suffered from neuralgia of the left side of the face. However, he had no signs of organic disease, and was extremely desirous of trying the treatment. He fell into a light sleep, characterized by being only able to open the eyes with some difficulty, and by feeling reflex warmth wherever suggested. He rapidly improved under treatment, and came to me daily for four weeks. He was then nearly quite well, and had his waking thoughts under complete control. His dreams still, however, had a tendency to be full of the old idea. By my advice he went into the country for a couple of weeks, and then returned to London for another short course of treatment. He was hypnotized daily from December 15th to 21st, and by that time was entirely free from unpleasant thoughts. He was able to go to church, which was previously impossible, and his health and spirits were good. His bowels, which had been most irregular for some months, became natural, and he almost completely lost a chronic nervous cough. He has returned to his home, and writes that he continues perfectly well. The patient was allowed to rest in the hypnotic state for half an hour daily, and for a considerable part of that time I talked gently to him, and pointed out how his evil thoughts came from a mistaken idea which my suggestions would overcome and replace.

The two following cases possess considerable interest, owing to the intellectual attainments of the patients, for they confirm the assertion that hypnotizability may be rather a sign of intellect than the reverse:

CASE 24.—*Cure of the Tobacco Habit.*

Dr. X—— is a university professor of eminence, and he came to me in June, 1890, to try what hypnotic suggestion would do to cure him of smoking. He had been an inveterate smoker for twenty years, and had never succeeded in breaking himself of the habit, though he had made frequent attempts. He was highly nervous, and complained of sleeplessness, palpitation, mental irritability, and dyspepsia—all probably due to the very large quantity of tobacco he was consuming in the form of cigarettes. He was easily hypnotized, and fell into the second stage. I suggested that he would cease to care for tobacco, and that he would find himself able to break off the habit without difficulty. The operation was repeated daily for three days, and the patient then discontinued treatment. On making inquiries I have received a letter from him from which the following is an extract:

'The suggestion was immediate in its effect so that I felt no craving for the weed, although I had been a habitual smoker for nearly twenty years. Of course I felt very uncomfortable, and my life was very much upset at first by my sudden change in habit; nor did I experience at once all the benefits that I expected from abstinence, so that had I not been under influence I should certainly have relapsed (to my everlasting regret), as I had done whenever I relinquished the habit before being hypnotized. I begin to think that I must now be tobacco-proof, and have not smoked once since I saw you, and am in very much better health.'

This was an admirable case to treat. The patient knew that tobacco was poison to him, and was full of

good resolves about giving it up. The will only needed a strong reinforcement from outside, and this was supplied by suggestion in the hypnotic state.

CASE 25.—*Neurasthenia.*

Mr. A——, aged 24, has taken a distinguished degree, and is a man of markedly neurotic and intellectual type. He came to me in 1890 suffering from nervousness, sleeplessness, restlessness, and other symptoms of overwork. He was hypnotized at once by fixation of the eyes for about a minute, followed by suggestions, and on his first visit fell into the second stage. He was unable to see me again for three weeks, but he told me that the effect of the one operation was very marked, and that for three days he felt a new man. Then the effect gradually wore off, and on the occasion of his second visit he was in much the same state as when I saw him first. He was more susceptible the second time, and in the course of the treatment he several times passed into the profounder states with amnesia on waking. I saw him now every alternate day for two weeks, and then once a week for a month. At the end of this course he reported himself as better than he had ever felt before in his life, and able to read the stiffest books for hours together without fatigue. He sleeps well and wakes refreshed and ready to get up, and is able to play tennis, row, etc., without being overtired.

CASE 26.—*Chronic Alcoholism.*

Mr. X ——, aged 34, came under treatment in January, 1891. He is a strong, thickset, muscular, and very plethoric man of highly nervous temperament. He had been a heavy drinker for about ten years, but through domestic and business worries had become much worse, and was in imminent danger of losing his employment and means of livelihood. He had had several attacks of an apoplectiform character, and drinking made him dull, heavy, and lethargic. His general health had suffered, but there

was no organic disease. He proved one of the best subjects for hypnotism that I have yet found, for he at once fell into a state of profound trance. The operation was repeated daily for three weeks, and he was then sent to the seaside for a fortnight preliminary to returning to his business. He went on well for ten days, but then received news from home of a distressing character. Worry of any kind had always driven him to liquor, and in spite of the recentness of the suggestions, he again sought the usual solace. For two days he drank large quantities of beer—the worst form of alcohol for him—and he was then brought up to see me. I found him in a very restless, excitable state, with quick bounding pulse and throbbing carotids. His face was of a dusky hue, and he complained of dull heavy pain in the head. On attempting to hypnotize him, I found that instead of falling into a sound quiet sleep he passed into a state resembling coma from which it was difficult to arouse him. The man was evidently on the verge of apoplexy, and to relieve the congestion, I at once applied three leeches behind the ears. They bit very freely, and the effect was very striking. In half an hour danger seemed past, and the next day he was almost himself. It looked as if ordinary suggestion alone had failed in this case, and that stronger treatment than usual was required. I therefore began to suggest not only disinclination for alcohol, but loathing for it. In the presence of my friend Dr. Arthur, I told him that liquor would act as an immediate emetic if he ventured to take it; and to put the efficacy of the suggestion to the proof, I made him drink half a glass of beer a few minutes after he was awakened. He was quite unconscious of the nature of the suggestions I had made, but I found considerable difficulty in getting him to drink the beer, as he said his stomach seemed to turn against it. However, he drank it, and no sooner was it down than he turned to me and asked where he could go, as he felt extremely sick; in a few moments he brought up all the beer he had swallowed. I then again hypnotized

him, and told him that he now saw the effect of alcohol upon him, and that similar indulgence would always and at once lead to the same result.

Mr. X—— remained under my observation until the end of March, when he returned to his home. His regular attendant continues the treatment, and hypnotizes him once a fortnight. The reports I get are always satisfactory. Small business worries no longer fret him as they used to, and the ever-present domestic annoyances are also borne with equanimity. Though such a susceptible subject, I proved to demonstration that, so far from being rendered more liable to be hypnotized by the repeated operations he had undergone at my hands, he was, on the contrary, less subject to hypnotic influence than an ordinary person. For instance, I requested a medical friend of some experience to try to hypnotize him. Not only did the attempt fail, but the touch and voice of the experimenter assumed a stimulating and irritating character to the feeling of the patient, and rendered sleep, and even rest, out of the question. This was in response to hypnotic suggestions I had previously made, that he was not to allow anyone to hypnotize him but myself, and Dr. S—— (his family medical attendant), except at his written request. There was no particular personal element in this or similar cases which have come under my notice, though of course it is desirable that in psychical treatment there should be mutual confidence and esteem between patient and doctor. Association of ideas explains the causation of sickness on taking alcohol, just as it explains why raspberry jam will sometimes produce nausea in adults who, as children, have frequently been given powders in it. The train of ideas once started continues, though circumstances may have completely changed, and the person may never be able to taste that particular preserve, or even to think of it, without experiencing nausea. In the face of such an explanation it seems to me quite wide of the mark to contend, as some do, that the effect of suggestion in these

cases is purely personal, and that when the patient goes away the force of suggestion will become weaker, until it ceases any longer to operate as a deterrent. Such has not been my experience, and Dr. Liébeault tells me that he has records of cases of chronic drunkenness which he treated, and cured, over twenty years ago, which have remained cured.

Total abstinence is not much practised in France, and Liébeault generally allows his alcoholic patients to drink light wine with their meals. A gentleman consulted me as to the benefit he was likely to derive from hypnotism in December, 1888; and as I found him a good subject - susceptible to the third degree—and he was going to France, I advised him to consult Dr. Liébeault. He was hypnotized at Nancy twenty times, told never to drink except with his meals, and then only light wine or beer. His wife was also instructed to hypnotize him and make the necessary suggestions once a week. I frequently see this patient and his friends, and though two years and a half have elapsed, he continues a moderate drinker, *i.e.*, he drinks a glass of beer or claret at lunch and dinner. He was a notorious drunkard, and for two years prior to the treatment had hardly ever been sober except under compulsion. Though this line of treatment has been so successful in that case, I do not think it is one to follow —at any rate, with Englishmen and I consider that total abstinence is the only safe course for people who have given way to drink, whatever plan of treatment is employed. The deprivation of alcohol is no infliction to the hypnotic patient, and there is, therefore, no object in not enforcing it.

CASE 27.—*Nervous Prostration.*

Mrs. E——, aged 41, came under treatment in January, 1890. She had led an extremely unhappy life for years, on account of the misconduct of her husband, who was a drunkard and a rake. The source of her trouble had been some months removed by his death, and there was no

actual cause to keep up her state of ill health. But the impressions left by years of worry were not removed by simple cessation of the irritation, and Mrs. E—— continued to suffer from sleeplessness, periodic headaches, constipation, loss of appetite, and intense mental depression. She was hypnotized with great difficulty, and only after six attempts had failed. She never lost consciousness, but fell into Liébeault's third stage. The suggestions I made were directed to quieting the nervous apprehensions which assailed her, improving her appetite, and producing natural sleep at night The suggestions acted perfectly, and the patient began at once to recover her strength and spirits. The mental depression gave place to a feeling of repose and relief, the headaches disappeared, and she became thoroughly well and strong in the course of two months. The improvement has been continued, and the nightmare of years has been thoroughly dissipated by suggestion. The improvement of mental health has been accompanied by at least equal improvement in her physical condition; she has gained weight, and lost the careworn expression which she formerly wore. Altogether she looks at least ten years younger than she did a year ago, and there has been no relapse.

CASE 28.—*Extreme Anæmia Treated by Hypnotic Suggestion.*

E. A——, aged 18, shop assistant, has been under my observation for several years, during which time I have occasionally treated her for various slight complaints. Her father is a drunkard, and her mother is anæmic and neurotic. The girl never had any severe illness, and was always remarkably bright and lively until the beginning of 1890. Then she began to droop, complained of feeling constantly tired; lost her fine healthy colour, and became sallow and pale; the period, which had been regular for three years, became irregular and scanty, and the bowels were constipated; she became short of breath on exertion, and was unable to lie down in consequence of

palpitation. She developed a hæmic murmur at the base, and a souffle under the clavicles; she ceased to have any appetite, and wished to live on a little tea and bread and butter. The case was thus a typical one of anæmia, and as such I treated it; first, by a course of Blaud's pills alone, and, when that proved ineffectual, by rest and a month at the seaside. She returned, however, in April from the sea, little, if any, better for the change. The amenorrhœa had become established, and there had been no show for over three months. Under these circumstances, I felt justified in advising hypnotism, and as the patient and her mother agreed, I hypnotized her on May 1st. She proved susceptible to the third degree, and I repeated the process three times a week for a month. The result was very striking, for the girl immediately began to improve. First she commenced to eat her food better, then her bowels became regular, next she lost the buzzing in the ears, and was enabled to lie down at night. Her pulse became slower and stronger, and the hæmic murmurs became less audible; and finally, in obedience to repeated suggestions, there was a slight catamenial show in the third week of May. From that time improvement was rapid, and the symptoms and signs of anæmia steadily disappeared. The patient resumed work in June, and has since continued rosy and well. This is one of a considerable number of cases of anæmia which I have treated by hypnotism, generally only after other measures have failed. One has only to try it in these cases to endorse Liébeault's contention, that hypnotic suggestion comes near being specific in the treatment of simple anæmia. Such patients are nearly always hypnotizable and are generally very suggestible. I cannot say that I have found improvement or cure so rapid as Dr. Liebeault records in several instances, wherein one or two operations sufficed to bring about a return to health; but I have generally seen improvement set in at once, and continue progressively. Anæmia so often proceeds from some disturbance in nutrition connected with innervation,

that one can understand how it may sometimes be reached by mental treatment. In these cases hypnotism acts, I imagine, by placing the system in the best possible state for natural recuperative processes to operate; it certainly speedily improves the assimilative functions and increases the remedial action of iron.

At the Berlin International Medical Congress Dr. Berillon was twitted with having only published his successful cases, and he was able to retort that if that was an offence he sinned in good company. The practitioner undoubtedly learns much from his own failures, but I cannot think that they convey much to others. In hypnotism, as in all other treatments, we meet sometimes with failure and disappointment where success seemed assured. Such a case is the following: A lady, aged 38, consulted me in November, 1890, for partial hemiplegia of apparently functional origin. Though it had lasted for six years, and all kinds of treatment had been tried in vain, I felt justified in hoping for a good result from hypnotism, especially as the lady was very susceptible and speedily became somnambulic. Suggestions were made with great caution, and she was told that she would become stronger and better daily, and on the seventh day would be able to get out of bed and walk without a stick. Though the suggestion was repeated daily, and the circumstances seemed most favourable, nothing critical happened on the expected day, and the patient still remains partially paraplegic. Her general health has, however, improved; she has lost her headaches and feels 'more alive.' Her intelligence, which was somewhat in the same condition as her limbs, has greatly benefited, and she has lost a habit she had of letting things fall that she tried to hold.

Probably in this case the disorder has lasted so long that it has become a part of the patient's individuality, and therefore cannot be cured unless something occurs to completely change that, or possibly the case may turn out to be one of those referred to by Dr. Buzzard, when

the earlier stages of disseminated spinal sclerosis are masked by hysterical symptoms.

Though she frequently becomes somnambulic she does not completely lose touch with the external world, and though anæsthetic and irresponsive to any voice but that of the operator, she will be seen to smile if something very amusing is said in her presence. She does not therefore fall into the profound state attained by Dr. Dumontpallier's patient, in which suggestion is all powerful, and there is always a degree of unconscious resistance which prevents the suggestions being accepted by the mind and transformed automatically into actions.

Another disappointing case is that of a boy aged 10, who was brought to me to be treated for nocturnal enuresis. He was a natural somnambulist, but hypnotism only induced Liébeault's fourth state. Suggestions were made that he should sleep lightly at night and that he should leave the bed. The suggestion was realized the first night, but completely failed afterwards, and the parents gave up the treatment at the end of a week. I think it very likely that with perseverance and change of method this patient might be cured by suggestion; but it was disappointing not to have succeeded at once in a malady which is claimed by all authorities as affording convincing proof of the efficacy of hypnotism.

Consideration of the following case may be useful:

Mrs. A , aged 40, came under my care in the beginning of 1890 for intemperance. She had indulged to excess for seven or eight years, and was a confirmed drunkard. Her home was not very happy, and her husband and children were uncongenial. She was naturally a clever woman, but for many years had entirely given up useful employment and devoted her whole time, when sober, to reading novels. She was in the habit of drinking anything she could get in the way of wine, beer or spirits, and showed great cunning in the way she procured them. She had completely lost all interest in life, and had become thoroughly hardened and reckless.

My success had been so gratifying, that I undertook the case with some confidence, and named three weeks as the time it would probably be necessary to keep her under restraint and in the hands of a nurse. Mrs. A—— proved a good subject, and was influenced to the third degree. Suggestions were made in the direction of loss of craving and dislike for alcohol, and were repeated daily for three weeks. The patient was by that time quite a changed woman, had regained an interest in life, spoke affectionately of her husband and children, and had altogether softened to a surprising extent. She went away to stay with friends, and during her absence was always bright and cheerful; and though she had easy access to wines and spirits she showed no inclination for them, but, on the contrary, proclaimed her intention of never touching them again. She returned to her home after being away altogether four weeks, and she continued to keep steady for four or five weeks, during which time she paid me bi-weekly visits. Then I ceased to see her, and soon heard that she had returned to her old ways. This case is a typical one, and I now know the reason hypnotism failed to exert more than a transitory effect. It was a bad case, and the home associations were antagonistic. Instead of keeping her away for only three weeks, she ought to have been under the charge of a nurse for at least three months, with only occasional visits to her home during that time. I have little doubt but that if this course had been followed the woman might have returned to her house and been temptation-proof in spite of ennui and opportunity. The change that was effected by three weeks' treatment justifies this inference, and the case is a warning against expecting too rapid results in difficult cases of dipsomania.

Even more disappointing than failure of suggestions to take effect are those cases where the treatment is strongly indicated and yet cannot be applied on account of the insusceptibility of the patient.

A case in point is that of a schoolmaster who consulted

me last year on account of a miserable delusion which was wrecking his life. He was under the impression that the boys were always laughing at him, and the struggle he had to contain his anger and maintain his dignity was so intense that it was undermining his health. The idea would probably soon have been removed by suggestion, but unfortunately he proved absolutely insusceptible to hypnotism.

NOTE.—The following cases illustrate the use of hypnotic suggestion in general practice. During the recent epidemic of influenza, I was called to attend a young woman who, in addition to the usual symptoms, was suffering from congestion of the right lung and erysipelas of the face. She complained very much of frontal headache and pains in the limbs, and had not slept the preceding night. The eyes were completely occluded by the erysipelatous swelling, and she experienced much heat and aching in them. I asked her if she would like to sleep and get rid of some of her pain, and she naturally replied that there was nothing she more desired. The ordinary method was out of the question, as she could see nothing, so I gently stroked her forehead and suggested drowsiness and sleep. This simple process rapidly induced somnolence and tranquillity, followed in less than ten minutes by a deep sleep, which lasted for two hours. The patient awoke greatly relieved by the physiological rest the system had enjoyed, and made a good recovery under the usual remedies. Of course, I do not contend that hypnotism is curative in erysipelas, congestion of the lungs, or any other acute disease; but from a number of experiences similar to the above I know that it quiets the nervous erethism which is so distressing a symptom in many acute cases, and puts the patient into a condition most favourable for recovery and for the action of drugs. I have found it useful as a palliative in cancer and other painful and incurable diseases. The following cases have recently been under treatment and present features of interest:

(1) Hystero epilepsy for five years in a girl aged 14. Attacks were caused by touching the region of the right breast (a hystero-genic zone), and were characterized by convulsive movements of the right side. In addition, there were nearly daily attacks of what looked suspiciously like epilepsy, with occasional biting of the tongue and followed by languor and drowsiness. The girl had been an in-patient at several hospitals without much benefit. After being hypnotized seven or eight times she began to improve. There is now no longer a hystero genic zone, and she has had no fit of any kind for three months. The catamenia, which had been suppressed for six months, did not, however, reappear, in spite of suggestions made to that effect.

The two last cases I shall give are not examples of brilliant cures, but illustrate the importance of not promising too much from the treatment.

(2) Miss H—— has been a chronic invalid almost since childhood. She is 40 years of age, and has anchylosis of the right hip-joint following hip joint disease and lateral curvature of the spine. She is of hysterical and melancholy temperament, and her mental powers seem to have atrophied *pari passu* with her disused muscles. A year's per-

severance in the treatment has enabled her to find some enjoyment in life; she is able to walk over a mile without much fatigue, and to play the violin for nearly an hour at a time. Previously for some months she had been barely able to move about the house, and it is years since she was able to walk a quarter of a mile. Neither had she been able for a long period to play, partly because of invincible habitude, and partly from the fatigue attendant on the slightest effort.

(3) Miss E—— was sent to me in October suffering from hysterical right hemiplegia of a year's standing. It came on suddenly after her mother's death, and she had had repeated relapses after apparent improvement. She fell sometimes into the third and sometimes the fourth degree of hypnosis, and in this condition friction was applied to the paretic side and suggestions made. She improved but slowly, and after twelve operations suffered from a relapse, and was confined to her bed completely helpless for a week. On her return to me I found the right arm and leg much colder than the left, and the reflexes on that side increased. Perseverance in the treatment for three months has produced a decided improvement; the right leg is nearly as warm and strong as the left, and her general health has greatly improved. One would almost have felt justified in expecting more rapidly curative results in this case, and the relapse whilst undergoing treatment was disappointing. It illustrates the point I have so frequently alluded to, that pronouncedly hysterical persons are by no means the best subjects for this treatment.

My appreciation of the efficacy of drugs has been intensified since studying hypnotic suggestion; for I have seen on several occasions a properly selected remedy remove a symptom which suggestion had left untouched. Dr. Van Eeden has shown how the beneficial effects of massage and Swedish gymnastics are increased in certain cases by being combined with Dr. Liébeault's system.

That hypnotic suggestion is destined to play henceforth an important part in the treatment of disease and the alleviation of human suffering is evident, and enlarged observation will show what it can and what it cannot do. Its future in this country depends on the attitude the profession assumes towards it during the next few years. If the attitude is a wise one, and the utility of hypnotism in treating certain diseases is recognised, and its practice given an honourable position, we shall see benefit conferred on humanity. Hypnotism affords special scope for quackery, and if its legitimate possessors refuse to use it, we shall probably see a class of undesirable practitioners arise, whose interests in it will not coincide with those of their patients or the profession.

APPENDIX.

Dr. Yung's Experiment with 'Magnetized Cards.'—James Braid of Manchester—Duration of Hypnotic Sleep. Dr. Luy's Rotating Mirror and Dr. Ochorowicz's Hypnoscope.—Theory of Professor Delbœuf.—Some Phenomena of Hypnotic Somnambulism.—Dr. Liébeault's Classification of Hypnotic Sleep.—Method of Public Performers.—Resolutions adopted at the Paris Congress.—International Statistics of Hypnotism.—Experiments in Auto-Suggestion. Hypnotization of Animals. Treatment by Transfer. Christian Science Healing. Hypnotism and Crime.

NOTE 1.—FOR PAGE 23.

I AM informed on the best authority that in the initiatory rites of several secret societies the candidate is submitted to a somewhat similar ordeal. He is told that he must submit to be bled. His eyes are blindfolded, his arm is pricked, and a stream of warm water is allowed to trickle down it.

The surroundings at the same time being mysterious and awe-inspiring, a very great effect is produced on nervous and sensitive subjects. Syncope and nervous exhaustion not uncommonly follow the ceremony, and the new member may be made ill for days.

The rite is, no doubt, an example of the survival of the form after the unpleasant reality has, in deference to civilization, been allowed to fall into disuse.

An amusing experiment is described by Dr. Yung, *privat docent* of Geneva, which forcibly displays the power of suggestion without hypnotism. He calls it 'the experiment with magnetized cards,' and he carries it out as follows: With a grave face and serious manner he pro-

ceeds to give a short account of 'animal magnetism,' and to explain how the 'subtle fluid' can be made to affect even inert substances. Having thus aroused 'expectant attention,' he carefully arranges a few cards on the table and makes 'magnetic' passes over them. This process, he assures his audience, charges the cards with his magnetism, and makes them different to any other cards, so that if a person touches one of them he will change its polarity, and it will thus be distinguishable to his touch from the others. He then leaves the room and a bystander touches one of the cards. Dr. Yung, on his return, makes a few passes over them and finally picks out the card which has been touched, saying that he feels contact with it sends a nervous thrill up his arm like an electric shock.

But he adds there is nothing wonderful in this, as anyone will experience the same thing. The challenge is accepted, and probably the most sceptical person in the room goes through the same pantomime of magnetizing the cards with a look of scornful contempt on his face. No card is touched, and he is told on his return not to make a guess, but to really try if he can detect a difference between one card and another. In nearly every instance Dr. Yung found a difference was said to be felt, and whatever card was indicated was declared to be the right one The experimenter is shut out of the room a second and a third time, and it is nearly always found that by the third time the subject will declare he undoubtedly feels a very strong nervous shock of the kind described by Dr. Yung. Of course, Dr. Yung had a confederate who, by an agreed-upon signal, informed him of the card which had been touched. He has tried this experiment on about eight hundred persons, many of whom were medical men and scientific students, and in nine cases out of ten he has elicited by pure suggestion the sensations he described.

I have repeated the experiment in about a score of cases, and in nearly every instance have obtained a like result. One subject, a particularly wide-awake American, assured

me at the third trial that the shock was quite as strong as that received from a powerful static battery which he had just been testing.

Note 2.—Braid of Manchester.

James Braid used to throw his patients into a kind of sleep or trance by making them fix their eyes and attention on a bright object—generally his lancet-case—held a few inches above the eyes. He found this caused fatigue of sight and abstraction of mind, which, in nearly all cases, induced the condition he termed *hypnotism*.

He practised his system successfully for many years at Manchester, and wrote several books in which he fully explained it.

But it seems to have died with him, and it is only now that *suggestion* with hypnotism has come so prominently before the profession that his works begin to be largely read. The most important one, 'Neurypnology' (London, 1852), has been recently translated into French by M. Jules Simon—an almost unique honour, I imagine, for a foreign medical author nearly thirty years after his death.*

Braid found hypnotism increased the heart's action to such an extent that he warned medical men against using it when heart disease was suspected. He found it impossible to get children to keep their eyes fixed on his lance-case for the necessary four or five minutes, and therefore regarded them as insusceptible. We have seen, on the other hand, that suggestion finds its best subjects in children between the ages of three and fourteen, and in heart disease it is one of the most successful means of calming and reducing irregular heart-action. Braid went near to discovering the truth which Liebeault, a few years afterwards, thought out, and introduced to the world.

* Braid died in 1860, the year in which Dr. Liébeault opened his dispensary at Nancy. So though unrepresented in England, he found a follower abroad who was possessed of a 'double portion of his spirit.'

Note 3.—Duration of Hypnotic Sleep.

In order to arrive at the solution of this, Professor Bernheim allowed many of his patients to 'have their sleep out.' He found its average duration was three or four hours, but, as with natural sleep, it varied with individuals and circumstances.

On several occasions it lasted fifteen, and once eighteen hours. In all cases the patients awoke fresh and comfortable

Note 4. Dr. Luys' Rotating Mirror, and Dr. Ochorowicz's Hypnoscope.

The mirror designed by Dr. Luys, of La Charité, is used in dispensaries and hospitals when it is desired to hypnotize a large number of persons in a short space of time. It consists of a rapidly revolving mirror mounted on a stand, and it is found that gazing at this quickly dazzles the sight and produces hypnosis in susceptible subjects. By its means a roomful of people may sometimes be hypnotized at once, and the suggestions can be applied at leisure. There is a large sale of these instruments in Paris, but in private practice I think they would not be found very effectual. Dr. Liébeault and others frequently operate on thirty or forty patients in a forenoon by the ordinary method without fatigue, so I fail to see the object of this plan of hypnotizing people wholesale

Considerable experience with Luys' mirror has not altered my opinion as to its utility. In one instance, a hysterical young woman, whom I cured of very obstinate hiccough (it had been almost incessant for seven years) by suggestion, was hypnotized by gazing for twenty minutes at the mirror after other methods had failed; but her case is almost an isolated one in my experience. Though Dr. Luys says everyone goes to sleep after looking at the mirror for half an hour at the

longest, I have seen several patients, who wished to be influenced, gaze at it steadily for nearly an hour without any result except a headache. I have seen it produce most violent palpitation, and altogether should advise caution in the use of the instrument.*

Dr. Ochorowicz, late Professor of Physiology at Lemburg, has devised an instrument for testing hypnotic susceptibility, which he calls the hypnoscope. It consists of a steel magnet bent in the form of a ring, which is placed on the patient's finger. He finds susceptible persons experience a sensation of numbness and stiffness in the part after wearing the instrument for a short time, and the finger is often rendered rigid and immovable. Dr. Ochorowicz himself seems to think this effect is the result of suggestion, and no doubt a patient who is so easily influenced by the imagination would be a good subject for the treatment. But I imagine that many persons who are sufficiently susceptible to hypnotism to benefit from suggestion would be quite insensitive to such action. Readers of Braid's 'Neurypnology' will remember how he paid a visit to a lady who announced herself as so affected by a magnet that she knew at once when there was one anywhere near her. Braid sat close to her for an hour with a most powerful magnet in his pocket within a few inches of her, but she experienced no discomfort, *because she did not know it was there.* I have frequently produced many curious local subjective symptoms in impressionable persons by passing a magnet over a limb, but always of the nature I have previously suggested.

NOTE 5.—THEORY OF PROFESSOR DELBŒUF.

Dr. Delbœuf, of Liége, whose experiment on the cauterized arm has been referred to (p. 61), and whose eye case has also been quoted (p. 249), puts forward

* I am frequently asked where the instrument can be bought. Until recently one had to get it from Paris, but now Mr. Thistleton, Medical Electrician, 1, Old Quebec Street, London, W., keeps a stock of rotating mirrors.

a theory to account for this action of suggestion on the functions of organic life. He supposes that under ordinary circumstances our attention is concentrated upon external things, from which come our more vivid impressions—the life of relation. The vegetative functions are so established that they go on automatically and unconsciously, and it is only under exceptional circumstances that we become acquainted with the working of organic life, *e.g.*, lying awake at night, we become conscious of the movements of the heart, and in illness we are frequently made unpleasantly cognisant of functions at other times unfelt. But though in the progress of evolution it has been found expedient that the functions of organic life should be carried on automatically by the lower departments of the cerebro-spinal system, in order that all our attention may be devoted to accommodating ourselves to the environment, the highest centres have not yet entirely lost control over those below them, and may under certain circumstances resume, on occasion, the power which they had ceased to exercise. It is well, under ordinary circumstances, that organic life should be carried on automatically; but it is conceivable that circumstances may arise in which the interference of the suzerain may be necessary. It is in these cases, according to Professor Delbœuf, that hypnotism plays such an important part. The hypnotized person is more or less cut off from the life of relation, and the attention being set free from consideration of the environment, can be directed inwards and made to concentrate itself for a time on the organic functions: the mind is thus enabled to resume its knowledge and the will its control.

On this theory it is possible to understand the different degrees of control over their functions exercised by different individuals. On the one hand we see or hear of exceptional cases like that of Colonel Townshend, in which a person is apparently able to exercise some control over his organic functions in his ordinary waking state, and others in which, by special psychical

preparation, such a result may be brought about, *e.g.*, the Indian fakirs. The theory explains the facility with which we produce curative effects in certain patients who are only slightly influenced by hypnotism, whilst in others our suggestions only affect functions, and relieve symptoms when the hypnotic sleep is extremely profound.

Note 6.—Some Phenomena of Hypnotic Somnambulism.

Many extraordinary and, at the present time, inexplicable phenomena can be produced in subjects who attain the last degree of hypnotic somnambulism.

Such persons are but rarely met with, and are, I believe, always of hysterical temperament, which is generally combined with a tendency to phthisis, scrofula, or other chronic disease.

These phenomena, as has been already said, are of purely psychological interest, and should be kept entirely distinct from therapeutic suggestion.

Among Dr. Liébeault's patients at Nancy is a young woman named Camille, a favourite subject for experiment, as she readily falls into the most profound state of hypnotic somnambulism.

Like many hysterical persons, she takes a pride in her infirmity, and therefore, without being over-sceptical, one may wish to verify the experiments tried on her. One of the most curious of these is the production of *negative hallucinations* by suggestion. Camille, and one or two other persons of the same nervous temperament, would be told that on waking they would not see So-and-so, though he might speak to her, touch her, and even prick or pinch her, and the suggestion was realized. Or they would be told that the door was no longer existing, in which case, though apparently quite awake, they would seek in vain to cross the threshold until the spell was removed.

On my return to London I was fortunate enough to meet a lady who takes a great interest in the subject, and is at the same time susceptible of being thrown into the most advanced stages of hypnotic somnambulism. Her husband is a man of science, and also much interested in hypnotism. They were both quite ignorant of the phenomena I wished to produce, and the conditions therefore were perfectly satisfactory.

Mrs. H—— is about thirty years of age, small, slight, and a blonde. She is highly nervous, and occasionally hysterical, but she enjoys good health, is intelligent, and active in her household duties. On the first occasion I tried to develop a negative hallucination her husband was confined to the room with a bad cold, and was sitting by the fire in an armchair a few feet from her. I hypnotized her, and told her that on waking she would not see him, would not hear him if he spoke to her, and would not feel him if he touched her. All this was literally realized. She was apparently wide awake, and yet when I asked her where her husband was she said she didn't know, but thought he had gone upstairs and would be down very soon. He spoke to her, calling her by name, and asked her to get his medicine, to stir the fire, what there was for supper, and a number of other questions. She gave not a sign of having heard; in fact, she evidently did not hear him, though she conversed with me intercurrently quite rationally. Mr. H—— then approached her, touched her hand, sat down beside her, and talked; but evidently for her he had ceased to exist, as she betrayed not the faintest consciousness of his presence. I then asked Mr. H—— to speak impersonally, and he said, 'Mrs. H—— will now go to the table, take up the doctor's gloves, and try them on.' She did not appear to hear, but in a few moments she got up, went to the table, and tried on my gloves—a thing she would never have thought of doing of her own initiative. I asked her why she did this, and she replied, 'I don't know; I thought I should like to.' She was not aware that the impulse proceeded from

another. When I blew on her eyes and said, 'Mrs. H——, there is your husband close beside you, and you can see him now,' she looked fixedly at his chair for a moment, and then said, 'Yes, I see him now, but where was he a minute ago?' adding, 'At first he looked small and indistinct, but now it is all right.'* We know we may look at a thing and yet not see it when in a 'brown study,' or preoccupied with something. A familiar example of this is afforded by observing how absent-minded people pass their friends in the street without recognition, though their eyes may dwell on them for some time. Afterwards they will deny having seen them, and truly they have not. 'Eyes have they, but they see not.' A physical impression has been made on the retina, but it has not undergone that cortical co-ordination or registration in consciousness without which there can be no perception.

I had only learnt that morning, from reading an article by Professor Liégeois,† the curious fact that in hypnotic somnambulism the subject will carry out a suggestion made by a person whom she is prevented by some inhibitory nerve-action from apparently either seeing or hearing. The same lady kindly allowed me to try other simple experiments on her. She was ignorant of the nature of them, and only stipulated that they should not make her appear ridiculous or cause much pain. When in the hypnotic sleep I gently touched and kept my forefinger on a small surface of the wrist, saying while I did so, 'Poor Mrs. H—— has a nasty burn on her wrist, probably from some boiling water; the place is very red,

* Binet and Féré, *op. cit*, p. 311, relate a convincing experiment showing the reality of this psychical blindness. A subject had on each side of the mammary region a hystero-genic zone, pressure on which immediately produced a hysterical attack. One of the physicians rendered himself invisible by suggestion, and at the same time destroyed the sensation of contact on his approach. A strong pressure on the zones then failed to produce any attack, nor did she make any effort to repel the experimenter, but only complained of a vague sense of oppression. On the other hand, she recoiled in terror when another person put his hand near these zones.

† 'Un Nouvel état Psychologique,' *Revue de l'Hypnotisme*, August, 1888.

and rather painful.' In a few minutes I awakened her, and she immediately began rubbing her wrist as if in pain there. On my asking her what was the matter, she replied, 'I think I must have spilt some boiling water on my wrist; it feels as if I had burnt it.' On looking at the spot, there was a very perceptible patch of redness about the size of a sixpence, and every moment this became more defined and angry-looking. As the pain was increasing, it would have been a breach of our agreement to protract the experiment, so I hypnotized her once more, and told her that there was no burn, and that the redness and pain would be quite gone when she awoke. In point of fact, a very short time was sufficient to disperse the morbid appearance, and on re-awakening her there was no complaint of discomfort. The same lady after the first operation complained of chilliness and stiffness, but I had only to suggest on future occasions that she was not to feel these unpleasant symptoms to ensure her not being troubled with them.

These experiments belong in no way to therapeutic suggestion, but are of interest as they show how exactly the phenomena produced at Nancy may be reproduced by experiment in England.

NOTE 7.—DR. LIÉBEAULT'S CLASSIFICATION OF HYPNOTIC SLEEP.

First Degree.—The patient feels a heaviness of the eyelids and a general drowsiness.

Second Degree.—This is characterized by suggestive catalepsy. When the operator places the arm in a certain position and says it is to remain there, it is impossible for the patient to put it down. It remains rigid and fixed for a much longer time than would be possible in a natural state. In these two degrees consciousness remains almost complete, and often the patient denies having been in the hypnotic state because he has heard and remembers every word which has been spoken to

him. A very large proportion of people never pass beyond this stage.

Third Degree.—In this the subject is also conscious of everything going on around him to a certain extent, and hears every word addressed to him, but he is oppressed by great sleepiness. An action communicated to a limb is automatically continued. If the arm is rotated to begin with, it goes on turning until the operator directs its stoppage.

Fourth Degree.—In the fourth degree of hypnotic sleep the patient ceases to be in relation with the outer world. He hears only what is said to him by the operator.

The *Fifth* and *Sixth Degrees*, according to Liébeault, constitute somnambulism. In the former, recollection of what occurred during sleep is indistinct and recalled with difficulty; in the latter, the patient is unable to recall *spontaneously* anything which has occurred while asleep. All the phenomena of post-hypnotic suggestion can be induced in this condition, and it presents features of extraordinary interest to the psychologist.

Note 8.—Method of Public Performers.

Though in deference to public sentiment the travelling 'professors' style themselves hypnotists, it is easy to see that they do so somewhat under protest, and that they much prefer the old name of 'mesmerism,' or better still, 'animal magnetism.'

Their method is the same all the world over. A certain number of previously hypnotized subjects are scattered among the audience, and when the lecturer asks for persons to experiment on, these make a rush for the platform and form a nucleus on which to work. Probably a few *bonâ-fide* strangers will lend themselves for experiment, and one way and another the platform will be well filled with candidates. The lecturer gives to each person a bright disc which he is to look at steadily. In a few minutes he goes round, closes the eyes, and tells the

subject that he is unable to open them. If he opens them, he is sent back to his seat among the audience; if not, he is reserved for further use and is given a seat on the platform. A favourite plan with the experimenter is now to open the subject's mouth to its widest extent, turn him round so as to face the audience, and tell him he is unable to shut it. A friend of mine, a doctor in good practice, was so treated in a foreign watering-place, and his feelings when he was thus made a laughing-stock of a large assemblage of people were not enviable. After these experiments in inhibiting voluntary motor action, the lecturer will go on to produce hallucinations of the senses, and will amuse his audience by showing what antics a human being can be made to perform when he has been deprived of the use of the higher brain-functions. He can be made to think himself a general at the head of his army in battle, a school-boy being flogged, or an animal at the Zoological Gardens. Whatever he is told to believe is at once acted upon, and as the lecturer's object is to cause amusement, he finds it advantageous to make the actions outrageous and to alternate the imaginary changes of condition as rapidly as possible. It is no wonder therefore that the unfortunate subjects complain the next day of *malaise* and mental confusion, and it is fortunate if no graver results follow. Public performances are forbidden in most cities on the Continent, and their prohibition was brought about at Geneva a few years ago in a curious manner. A travelling 'professor' gave a performance in the city, and among his subjects he succeeded in obtaining several respectable citizens. After the usual comedy, he ended with a grand *tour de force*, for he told his victims that on the following day at noon they were to go to the chief *Place*, and were then to do various acts which he detailed to them, and he invited his audience to assemble to see the sport. At noon the next day the *Place* was naturally well filled with sightseers, and as the subjects of the preceding evening appeared, there was a murmur of expectation. As the clock struck twelve one

respected citizen mounted a seat and harangued the crowd, two more removed their coats and ran an exciting race round the square, and others did equally absurd things in obedience to suggestions made the night before. This performance proved too much for the City Fathers; the too clever hypnotist was shown out of the city, and it is probable that Geneva will be avoided by gentlemen of his profession for some time to come.

The performance of such a person has about as much relation to psycho-therapeutics as the antics of a merry-andrew at a fair have to the practice of a court physician. That such things should have been tolerated will probably be a subject of astonishment to our descendants.

Note 9. Resolutions Adopted at the Paris Congress.

The following resolutions were agreed to at the first International Congress of Physicians and Jurists on Hypnotism held in Paris, 1889:

'This Congress recognises the danger of public exhibitions of magnetism and hypnotism, and deeming that the therapeutic application of hypnotism has become a branch of the science of medicine, that its official teaching is the province of psychiatry, votes the following resolutions:

'1. Public exhibitions of hypnotism and magnetism should be forbidden by the administrative authorities in the interest of public hygiene and public morals.

'2. The employment of hypnotism as a curative agent should be subject to the laws and restrictions which regulate medical practice generally.

'3. It is desirable that the study of hypnotism and of its therapeutic application be introduced into the curriculum of medical sciences.'

The following schedule (pp 296, 297) has been sent to all physicians who have sent in their names as practising hypnotism. The immense practical value of the statistics to be thus collected will be recognised at a glance.

INTERNATIONAL STATISTICS OF HYPNOTIC IMPRESSIONABILITY AND OF SUGGESTIVE PSYCHO-THERAPEUTICS.

The following schedule is framed with the object of elucidating the results of hypnotic treatment by comparative statistics.

'*a*. The proportion of persons who are susceptible to hypnotic influence.

'*b*. The degree of impressionability and its relation to the age, sex, constitution and temperament of the subject, and the method of hypnotizing adopted.

'*c*. The value of hypnotic suggestion as a therapeutic agent tested by the amount of success and number of failures, by the duration and completeness of the cures, ameliorations,' etc.

This inquiry is extremely important, because authorities are not agreed on the subject, and we therefore beg our colleagues who use hypnotism either as a means of cure or for scientific investigation to fill in the enclosed papers as completely and carefully as possible.

Please give the degree of hypnotism attained, and for the purpose of classification observe the following definitions and characteristics:

I. *Light Sleep.* Feeling of fatigue. The patient's will-power is either unaffected or is only slightly modified. It is often difficult or impossible to open the eyes. The subject on awaking remembers everything that has happened, and does not experience the sensation of having slept.

II. *Profound Sleep.* The patient's will is either partially or completely in abeyance. The eyes are generally closed, but sometimes remain open. Memory on awaking is either lost or incomplete, and he feels more or less the sensation of having slept.

III. *Somnambulism.* Complete amnesia on awaking, and possibility of realizing hallucinations and other hypnotic and post-hypnotic suggestions.

The sign O signifies the waking state.

SCHEDULE.

Somme totale des personnes.	Hommes (—*h*)	Femmes (—*f*)	Age (approximatif) *a* = 1-10 *b* = 10-20 *c* = 20-30 *d* = 30 40 *e* = 40-50 *f* = 50-60 *g* = 60-70 *h* = 70-100	Dégré d'influence hypnotique. O. Refractaires. I. Sommeil leger. II. Sommeil profound. III. Somnambulisme.	Méthodes employées, α β γ o	Effet nul.	Amélioration légère ou passagère.	Amélioration très décidée.	Guérisons.	Récidives.	Durée des succès.	Ont abandonné le médicin devant traitement fini.	Résultat inconnu.	Nombre des séances hypnotiques	Remarques.	Nom, titre, fonction du correspondant : Domicile adresse du correspondant :
																I. Personnes saines.
																II. Personnes malades.
																A. Maladies du système nerveux. (Affections organiques.) Affections traitées.
																B. Maladies mentales.
																C. Grandes névroses : (*a*) epilepsie, névrasthénie, tétanie, chorée, etc. (*b*) Affections hysterique.
																D. Troubles névropatiques diverses : (*a*) anesthésie, hyperesthésie, crampes, convulsions diverses. Névralgies. Céphalgie habituelle. Migraine, etc. (*b*) Paralysies fonctionelles, parésies. (*c*) Autres troubles nerveux,

	Hypochondrie. Agoraphobie. Impuissance (faiblesse) psychique. Habitudes perverses.
	E. Troubles fonctionelles des appareils ou systèmes en consequence des (*a*) Maladies d'organisation (constitution) : arthrite, anémie, maladie tuberculeuse, consécutifs à syphilis. (*b*) Affections rhumatismales : articulaires, musculaires. (*c*) Troubles gastro intestinaux : vomissements, catarrhes, nerveux (crampes, manque d'appétit, etc.). (*f*) Consécutifs au maladies d'infection. (*g*) Liés à des maladies externes.
	F. Anesthésie chirurgicale.
	G. Diminution du fièvre.
	H. Troubles de la menstruation. Chlorose.
	J. Autres affections non citées.
	K. Remarques.
	Expériences de Stigmatisation, etc.

Please indicate the method employed by the following signs:

α. Method of Braid and Charcot. Physical means. Vivid sensory impression (light, sound, etc.). Fixation of the eyes with a brilliant object. Pressure on or friction of certain regions of the body (hypnogenic zones). Monotonous sensory impressions, etc.

β. Method of Liébault and Bernheim. Suggestion: the method adopted by the school of Nancy. *γ*. Combined method — *α* employed systematically in conjunction with *β*.

Forms to be obtained from, and details to be sent to, Dr. Von Schrenck-Notzing, Munich.

Note 10.—Experiments in Auto-Suggestion.

Dr. Coste de Lagrave, surgeon-major in the French army, contributed an interesting paper to the International Congress on auto-suggestion, and related several experiments he has made on himself during the last few years.

By practice he acquired the power of being able to sleep at will, and of awaking at a definite time. To effect this he only had to lie down, and fix his attention on sleep, and on the idea that he would awake after a certain number of minutes. In a short time he obtained such self-control that he could get five or six distinct sleeps, and as many distinct awakenings, in the course of an hour. He also succeeded in producing dreams of the character he wished, and in evoking sensory delusions and hallucinations to such an extent that he became alarmed, lest the condition thus induced should become permanent. He was able to apply auto-suggestion in a curative direction, and thus to relieve himself of colic, gastrodynia, and the like. He did this by closing his eyes, and concentrating his thoughts on the organ he wished to affect. In from a quarter to half an hour he generally succeeded in getting rid of the pain. On one

occasion, when riding with troops, he suffered greatly from cold feet, and he tried the effect of auto-suggestion. He closed his eyes, and induced a state of drowsiness, in which he directed his thoughts to his feet, which he wished to become warm. In less than half an hour he was conscious of a feeling of warmth in them, and as long as he kept his attention fixed there they continued so; but very soon they became cold again when he allowed his thoughts to dwell on other things, showing, as he thinks, that the sensation of warmth depended on mental influence and mind concentration. In subsequent experiments he produced the desired result in a shorter time, and he found that the sensation of warmth was not merely subjective, for on removing his boots he felt the previously cold feet warm to the touch, thus getting the same effect as is nearly always demonstrable in ordinary hypnotic practice.

He relates a curious experience of auto-suggestion in nervous prostration. He had been invalided home from Tonkin for dysentery, and for a year had been so prostrated by weakness that he was unable to walk a mile in the course of a day. One night he suggested to himself increased muscular and nervous force, and ability to walk without fatigue. The next day he walked over six miles without difficulty; but unfortunately he does not mention in his paper whether this effort was followed by reaction, or whether the improvement was permanent.

Dr. de Lagrave's experiments open up an interesting field of research, and if his experience is corroborated by that of other scientific observers, it will throw light on a number of mental phenomena connected with directed self-consciousness, which are at present surrounded with a degree of mysticism. The yogis and fakirs of India assert that they can obtain remarkable control over their bodily organs and functions by contemplation, introspection, and other mental exercises; and there is little doubt that many of their achievements are the result of auto-hypnotism and auto-suggestion.

Note 11.—Hypnotization of Animals.

Dr. Gerald Yeo, Professor of Physiology at King's College, read a very interesting paper before the College Society in 1883 ('The Nervous Mechanism of Hypnotism'), in which he propounded some interesting theories on the subject of hypnotic phenomena, and illustrated them by experiments on animals. He showed how animals of such diverse organization as crayfish, frogs, fowls and guinea-pigs could be easily hypnotized by monotonous continuous stimulation, and made to remain motionless and unresponsive to ordinary stimulation. He induced this state by firmly fixing them in one position for a few minutes, and then gently removing the restraining influence when it was found the animals continued in that position, however abnormal, for several minutes. Kircher's experiment with the domestic fowl is the most familiar example of hypnotic effect in animals. If a chalk line is drawn and the bird held for a few seconds with its beak on this line, it will be found that the creature remains in that position for several minutes. Dr. Yeo, however, says that the line is unnecessary in performing this experiment.

The plan of changing the nest of a sitting hen, familiar to farmers, probably depends on hypnotism for its success. The fowl's head is firmly held under its wing for a few minutes, and she is carried from one nest to another. She seems ignorant of the change, and continues sitting on the new set of eggs until they are hatched, or she is again removed to another nest in the same way. The drowsy condition induced in many animals by gentle friction of the forehead is a matter of common observation; and I have frequently seen negroes in South America reduced to a condition of drowsiness verging on somnambulism by the gentle stroking of the head and manipulation of the hair which they seem to be so fond of at the hands of their womankind.

NOTE 12.—TREATMENT BY TRANSFER.

Dr. Luys, physician to La Charité Hospital, Paris, and a well-known physiologist, has recently introduced a novel kind of treatment of which he expects great things, and which, as he told me, he thinks will supersede hypnotism. In company with my friend Dr. Kingsbury, I took several opportunities last autumn of visiting his clinique and seeing his method.

Dr. Luys and his assistants were most kind, and readily showed us the curious experiments described in the *Fortnightly Review* for August, 1890. Several patients were undergoing the new treatment, and we had the opportunity of watching their progress for three or four days, and of questioning them as to their feelings and symptoms. Many of them spoke with enthusiasm of the progress they were making, and in a few cases it was possible to note an improvement from day to day. The process is simple enough. The patient is directed to sit down and grasp the hands of a profoundly hypnotized subject, and Dr. Luys passes a heavy magnetized bar of steel up and down both sitters' bodies, especially pressing on the cardiac and epigastric areas. A shiver is seen to pass through the hypnotized subject's frame, and he begins to complain of suffering from the same symptoms as the patient has experienced. The doctor questions him as to the symptoms, and then assures him that they will be cured and not return—much in the same way as the hypnotizer deals with his patients. In the meantime the patient looks on and sees the transferee writhing in his pains, and imitating his voice, gait, gestures and demeanour generally. If he is an imaginative person it is quite likely that he feels better from witnessing this vicarious suffering. When the doctor thinks it is enough, he tells the subject to wake up and to feel no more pain, and as a matter of fact he does not remember on waking what he has gone through in the somnambulic state, but goes away feeling apparently none the worse, and gratified by

a gratuity from the patient whose disease he has shared. Dr. Luys contends that the subject not only shares the disease, but partakes of the personality of the patient, and demonstrates this by showing how a female sitter will assume a masculine voice and carriage when sitting for a male patient, and will complain of the beard being pulled if one approaches the face too closely. It is not a little surprising in this age of science to find a man of Dr. Luys' undoubted honesty and attainments seriously upholding practice of this kind. One is taken back to the time of Perkins and his metallic tractors to find a parallel for what is now taking place in Paris; and be it remembered that remarkable cures did follow the application of Perkins' instruments and of the wooden imitations which the physicians of Bath tested in their hospital practice.*

What, then, is the explanation of the results which follow such methods of treatment? It is summed up in the word 'suggestion.' The imagination is profoundly affected by the hope and expectation of cure, and this in itself is sufficient to bring about a healthy change in the hypochondriacal, hysterical, and *malades imaginaires*. But among the patients we questioned were some who suffered from well-defined organic disease; one gentleman affected with aortic insufficiency assured me that since his visits to Dr. Luys he had recovered his appetite, had slept well, and been able to walk uphill and upstairs, whereas previously he had been sleepless, without appetite, and almost bedridden. A man suffering from paralysis agitans declared he felt a different being, but as far as we could see there was no lessening of his tremor, though the young woman who acted as his transfer reproduced his disordered movements most faithfully. It is evident that in nearly all diseases there exist symptoms—often the most painful part of the malady—of functional nervous origin, and it is these symptoms which are largely met by hypnotic suggestion and other treatments which appeal

* 'Influence of the Imagination in Health and Disease,' by Dr. Hack Tuke.

to the imagination or the subconscious mind. I consider that it is the duty of a physician to relieve suffering in any way, as long as it is not immoral or hurtful; but no one visiting La Charité Hospital can say that the treatment by transfer, as practised there, is free from terrible abuses. It is a sad sight to see to what a deplorable condition of mental instability and inanity the unfortunate subjects have been reduced by continual hypnotization and experiments. Of course, the experiments carried out on such subjects, and under such hysterical conditions as exist in Dr. Luys' clinique, are valueless from a scientific point of view; and the phenomena he obtains from the action of the magnet, different coloured balls, and with medicines at a distance, have been sought for in vain by other investigators. I have found my subjects perfectly insusceptible to the magnet, until I have told two or three of them that contact with it will always produce pain in the part touched; henceforth they have always realized my suggestion, and complain bitterly when touched by it, or by any cold metallic substance. When one considers that the personality of a subject in the profounder hypnotic states is in complete abeyance, and that his mind is a blank page, to be written on at the dictation of the hypnotizer, we see how absolutely necessary it is to guard against conscious and unconscious simulation, and how utterly Dr. Luys' experiments are wanting in the only conditions which could render them of any value.

As bearing upon the above remarks, I may state that I purposely asked Dr. Luys if the magnet influenced all somnambulists in the same way, and he answered that it did. If he had been more cautious, and had replied that only some subjects were sensitive, one would have been more inclined to believe in the genuineness of his results. The only way of testing the so-called magnetic sense described by Reichenbach is by the electro-magnet, which can be 'made' or 'unmade' instantaneously in a manner impossible for the subject to guess by ordinary

sensuous impressions. The inquirer will find in the first volume of *The Proceedings of the Society for Psychical Research* a report of some experiments made to determine the existence of this sense. The experiments were carried out under rigorous scientific conditions, and proved that certain persons do possess the faculty of perceiving certain effects from the poles of an electro-magnet when in action. But from this to the propositions laid down by Luys is a very long step.

The use of the magnet in medical practice is nothing new. Hippocrates believed in its virtues, and recommended its employment in painful diseases (Laycock). Throughout the Middle Ages its efficacy was a matter of general belief, and Mesmer and his followers saw an analogy between animal and telluric magnetism. It has been left for Charcot and his school to claim physical reactions from the use of the magnet in our own time. Whether such reactions depend upon pure suggestion, as asserted by Bernheim, or do really proceed from some magnetic influence, is a question which can only be decided by very careful experiments. In my own experience I have seen nothing to warrant the supposition that there is any special quality in the magnet. Krafft Ebing found that Ilma Szandor was affected by the approach of any metal which she believed to be a magnet, exactly as she had been by the real magnet However, Charcot gets transference of paralysis and other functional troubles in hysterical subjects from one side to the other, by passing the magnet over the parts—a proceeding which causes Dr. Gowers to write: 'The phenomena of transfer (of the genuineness of which, in spite of its rarity out of France, there can be no doubt) show that there must exist an intimate connection between the sensory centres of the two hemispheres, so that the restoration of functional action in a part of the inhibited centre is accompanied by an arrest of action in the corresponding part of the centre on the opposite side. The validity of this inference is independent of the mode by which the phenomena are

effected, or of the exact functional change in which they consist' (*op. cit.*, p. 934).

I don't know whether Dr Luys has yet applied his treatment to the correction of moral ills. Historians tell us how in the Middle Ages young princes were provided with 'whipping-boys,' whose office it was to bear the penalty incurred by the prince's fault, but from which his august rank was held to shield him. We are told that Edward VI. was of so sensitive a nature that in his case this punishment by deputy was most efficacious.

NOTE 13.—CHRISTIAN SCIENCE HEALING.

As far as I understand the method of healing called *Christian Science*, and similar modes of treatment which, as Sir J. Crichton-Browne told us at Leeds, fall legitimately within the scope of medical inquiry, I believe that the cures they have effected in certain neuropathic conditions depend upon the same factors as we have been considering.

Auto-suggestion is a proved exciter of disease and ill-health, and it is easily conceivable that when directed into healthful instead of morbific channels, it may prove a valuable moral and curative agent.

It is certain that most of those who derive benefit from healthily directed self-consciousness are capable of doing themselves an infinity of harm by morbid introspection if left to themselves.

If a hypochondriacal or nervous invalid can by any means, its name matters not, be induced to look upon himself as healthy and strong, instead of as diseased and weak, a great point is gained, and as he has grown into the miserable creature he imagined himself to be, so it is possible that under different conditions of thought he may realize in his own person some of the perfection upon which he fixes his aspirations. But we must remember that reverie is apt to pass into brooding, and introspection into hysteria, unless very carefully watched. We know also that ecstatics of all times and creeds have succeeded in becoming careless and unconscious of bodily

pain and discomfort, but that this deadening of sensation has not saved them from wasting with disease, and dying from exposure and neglect.

Practically, the contention of the 'Christian scientist' is that he can bring about spontaneously what the physician certainly succeeds in effecting by the aid of hypnotism, viz., the inhibition of some centres, and the dynamogenesis of others. Thus he will tell you that he can become unconscious of the pain of toothache by determinedly denying its existence and fixing his attention on other things.

I have frequently succeeded, following Dr. de Lagrave's hints, in awakening at a predetermined moment, and no doubt anyone with a little practice will be able to do the same thing; but I imagine that the other effects of autosuggestion which he relates are only to be attained by hysterical or neuropathic subjects.

Such experiments afford additional proof of the correctness of Bernheim's theory that in hypnotism it is the patient who hypnotizes himself, and that it is the evocation of his own forces (under the stimulus of suggestion) which constitutes the curative agency in the treatment. Surely this is a better and nobler conception of the power in every way than that current before Braid's time, and still held by unscientific 'magnetizers,' which would have us believe in a subtle fluid passing from operator to subject.

Dr. Byrom Bramwell, speaking of the important part voluntary effort plays in cases of paralysis, instances that of the late Mr Horatio Ross, a celebrated sportsman.* 'When some eighty-two years of age, Mr. Ross was attacked with hemiplegia which was, perhaps, embolic. He was seen by a distinguished neurologist in London, who, considering the advanced age of the patient and the very serious nature of the attack, gave a very unfavourable opinion, saying that he would never use his arm again. Shortly afterwards he came to Edinburgh and placed

* 'Studies in Clinical Medicine,' vol. i., No. 6.

himself under the care of Dr. Foulis, who had previously attended him. When he consulted Dr. Foulis the paralysis of the arm, though not absolute, was very great; the leg, as is usually the case, had to a much greater extent recovered.

'Dr. Foulis, who is a firm believer in the beneficial effects which frequently repeated voluntary efforts produce in cases of paralysis, explained to Mr. Ross the importance of making frequent and systematic efforts to throw the paralyzed muscles into voluntary contraction. Mr. Ross, who was a man of iron will as well as (in his younger days) of iron muscles, fully appreciated the *rationale* of this method of treatment, and set himself diligently and with firm determination to carry it into effect. Many times every day he endeavoured to perform each of the individual movements which the hand, forearm, and arm are capable of making. The paralyzed muscles soon began to regain some power, and each day, and almost all day, he diligently practised some form of muscular movement. I was asked to see him some two months after he had commenced this treatment, with the object of advising whether electricity would be beneficial. He had then regained considerable movement in the paralyzed arm and much more in the leg. He continued to practise his muscular gymnastics, and in the course of three or four months he had practically recovered; he could, in fact, make such good use of his paralyzed arm that, on the following 12th of August, he was able to get on to the moor and actually to shoot several brace of grouse.'

Dr. Bramwell attributes Mr. Ross's rapid recovery to the exercise of the will power, as each voluntary effort tends to act as a stimulus which travels along the damaged nerve tract and forms a path for motor impulses.

In support of this theory he reminds us that after facial paralysis the orbicularis palpebrarum is the first muscle to recover its tone, on account, he thinks, of its great functional activity. In consequence of the immense number of

times each day the reflex stimulus from the conjunctiva—inclination to wink—is applied, the nerve tract is continually being stimulated by impulses which endeavour to force their way through the lesion, and this repeated stimulation leads to rapid repair of the damaged nerve fibres.

The important part will-effort and concentration of purpose play in muscular development and renovation of tissue is seen in Swedish gymnastics, and in the method practised in America under the name of psycho-physical culture. We have much to learn of hypnotism as a stimulator of effort and arouser of the will, and it is in this direction the power should be used, and not as a supplanter or enfeebler of individuality.

NOTE 14.—HYPNOTISM AND CRIME.

Recent events, and especially the Gouffé trial in Paris, have brought the question of the employment of hypnotism for criminal purposes prominently before the legal and medical professions, and a word on the subject will not be out of place here. It is very fully discussed by Dr. Liégeois is his book, already referred to, and Mr. Taylor-Innes, of Edinburgh, has treated it at some length in an article in the *Contemporary Review* for October, 1890. Mr. Brodie-Innes states the case in the *Juridical Review* for January, 1891. Dr. Kingsbury has written an able criticism on the former article in the *Nineteenth Century* for January, 1891, in which he throws great doubt on the possibility of criminal acts being suggested and carried out in the hypnotic or post-hypnotic state; and his arguments, so far as they go, are conclusive. Charcot, also, and his school discredit the idea that hypnotism can be made the vehicle for criminal suggestion, and contend that the subject was perfectly aware of the harmless nature of the act he was committing when, in obedience to Dr. Liégeois, he seized a paper-knife on

waking, stole to his wife's side, and stabbed her to the heart. He knew it was acting, and did his part well, that is all so explains Charcot. The same thing applies to other test criminal actions, as, for instance, the theft of jewellery, or the discharge of a revolver loaded with blank cartridge, either at the patient's own breast or at a stranger's. The subject knew about the trick, and the experiment was simply a laboratory one, which would fail if put to a real test. We here see a curious circumstance, and one which, to my mind, is strong testimony to the thorough-going honesty of the Nancy school. They are engaged in strenuously maintaining that in hypnotism the evil-disposed have a weapon which will give them absolute power over their agents, and insure the accomplishment of crimes without any risk to themselves. What contention could possibly be more fatal to the extended employment of hypnotism which they advocate, or more certain to arouse popular feeling against the treatment? I consider that the question should be met with perfect frankness, and agree with Mr. Brodie-Innes that lawyers should seriously study the possibilities of hypnotism. In approaching the matter, it is necessary to bear in mind a few points in order to be able to arrive at a proper conclusion. In the first place, only a small proportion of the population are sufficiently affected by hypnotism to be reduced to automatism or powerlessness. In a large number even of these the loss of will and self-control is not sufficient to render the subject absolutely helpless, and in many cases where there is apparent helplessness personal violence or criminal suggestions would restore complete consciousness and the power of resistance. It is difficult, and often impossible, for even a skilful medical man to judge of the precise depth of sleep, and so pronounced a somnambulist as Mrs H—— often retains a degree of latent consciousness, and remembers subsequently things I have said to her in the hypnotic state; but no doubt criminal assaults might be committed on women while in the deepest sleep, and in some cases

there would be no subsequent recollection of the circumstance. Here we have exactly analogous abuses of chloroform and other drugs, and the criminality should in each case be considered the same. The chief point of interest is not whether hypnotism may be used as an anæsthetic for the performance of brutal outrage, but whether it may be used with any prospect of success as the vehicle for criminal suggestion. I believe that, under certain circumstances, it might be so used, and I here give my reasons for the belief. Hypnotism acts chiefly, as we have seen, by immensely increasing the capacity for receiving, and the desire to act upon, suggestion. It is this property which we make use of in dealing with drunkards and morphinomaniacs, and our suggestions of abstinence and self-control are received and acted upon in proportion to the depth of sleep attained and the natural receptivity of the patient. I have, however, seen suggestion curative in a case of chronic drunkenness where the influence of hypnotism was barely discoverable, and I have seen it fail where somnambulism was induced. In the first case the patient's desire was for cure, and the natural force of moral suggestions had to be but slightly increased in order to obtain success; whereas in the latter instance the patient had no real desire to give up his bad habit, and the suggestions found no soil in which to take root. I see no reason for supposing that a somewhat similar result would not follow criminal suggestions. It would be vain to make criminal suggestions to the disciplined and moral man, for he would either wake up at once or would ignore them; but it would be an easy task to corrupt the naturally weak and ill-disposed. If, as has already been said, one told a sincere teetotaler that on waking he was to drink a glass of brandy, it is certain that the suggestion would fail, no matter what was the degree of sleep induced; but the half-hearted abstainer might perhaps succumb, just as he would yield to the pertinacious solicitation of his ordinary companions, because the wish to abstain was not strongly grounded or an

essential part of his individuality.* Dr. Norman Kerr's objection to hypnotism that, if it enables the physician

* This theory is borne out by some experiments made by Prof. Lombroso, of Turin ('Studi su l'Hypnotismo,' Turin, 1886). He hypnotized two medical students of good character, and suggested to them that they were to steal some articles of value. One of them woke up crying, 'No, I will not be a thief;' and the other, after much opposition, did seize the things, but almost immediately threw them from him. On the other hand, the same physician found that a hysterical young woman of doubtful character received with evident satisfaction the suggestion that she was a thief or a brigand, but resisted the assertion that she was a savant or moralist, and declined to give a disquisition on the beauty of virtue. I have never gone so far as to suggest criminal acts to my subjects, and I should regard such a course as very objectionable; but I have suggested lines of conduct opposed to the disposition of the patient, and I have generally seen the order ignored or very partially obeyed. For instance, I suggested to a brother Mason whom I had hypnotized some scores of times, and who is one of the best subjects I have ever seen, that he should tell the secrets of the craft. He became extremely disturbed, and vigorously protested that nothing would induce him to break his oath in such a manner. This patient was so susceptible to my suggestions that if I told him during the hypnotic state that his tie—a red one—was green, he would accept the suggestion and stoutly maintain on waking that it was green. Another patient, who is also a profound somnambulist, though a man of great muscular strength and keen intellect, carries out ordinary post-hypnotic suggestions with accuracy, but when the suggested act is contrary to his volition, he argues the point and does not execute it. For example: I tell him that five minutes after waking he is to take a pin from a pincushion and stick it into the curtain. He does so in a somewhat shamefaced manner, and perhaps says afterwards that he does not know why he did it, but that he felt he must. But when I tell him to pay me a visit at two o'clock on Saturday—the time when he pays his men he tells me that the thing is impossible, and I am unable to persuade him to consent (see also Dr. Forel's case, p. 151).

Dr. Kingsbury was able to demonstrate this point before the meeting of the British Medical Association in 1890, for his subject, a Manchester merchant, refused to execute any order opposed to his natural temperament.

In the *Dublin Journal of Medical Science*, May, 1891, Dr. Cruise relates how he saw Dr. Bernheim endeavour to extract a man's political opinions while in a state of profound hypnosis. The patient declined to tell them, and, folding his arms, said, 'C'est mon affaire.' What a remarkable contrast to the awkward confessions occasionally volunteered under the influence of chloroform or ether, is Dr. Cruise's comment on this incident. On the other hand, Liébeault records how, by telling a young girl that he was her father confessor, he succeeded in obtaining her confession. The result must depend upon the patient's disposition and character. For instance, I told one hypnotic patient that she was to resist my suggestions, and yet she was unable to do so, whereas another patient not only resisted my suggestions, but awoke when I insisted upon them.

to cure a drunkard, it will enable a scoundrel to debauch a sober man, is, I hold, extremely fallacious.

It is my opinion, and also my experience, that the power in us for good is more potent than that for evil, and that it would be very much harder to make the good man do wrong than to influence the bad man for good. But hypnotism acts by increasing the normal impressionability to suggestion; and as a moral person of unstable character may be corrupted in time by vicious surroundings and evil influences, so, I believe, the same person could be more quickly and surely corrupted by evil suggestions made to him while in the hypnotic state. I have no doubt that many of the subjects taken about with them by travelling showmen have entirely lost all individuality, and have become passive instruments in the hands of their employers. To reduce a fellow-creature to such a condition is, I hold, one of the greatest offences which can be committed against the dignity of humanity; for the position of the unfortunate victim is worse a hundredfold than that of the captive who has only to submit to material slavery. It is witnessing degrading performances, and confusing the travesty with rational hypnotic treatment, which makes many well-meaning people look with horror on the present spread of the knowledge of hypnotism. There is a simple means of doing away with much of the danger which may attend its popularization. Let it be regarded as a medical procedure, to be had recourse to only for definite therapeutic purposes by qualified medical men, or as a method of real scientific research in the hands of savants. Let the public be made acquainted with the dangers which attend its use by improper persons, and let its employment in public for purposes of gain or mere amusement be sternly forbidden in England, as it is in other countries.

I do not think the ordinary criminal will ever make use of hypnotism; it is too tedious and uncertain a process. There have been accounts in the papers of various crimes alleged to have been committed by its means. Some boys

in Pesth were a little time ago stated to have robbed their masters' tills in obedience to hypnotic suggestion, and an ingenious newspaper correspondent was quite sure that the Whitechapel murders were the work of someone acting under hypnotic influence! My opinion is that the malefactor, unfortunately, finds plenty of material ready to his hand without hypnotism, and that the weak and criminal actions of bad men and women are capable of a much simpler explanation.

Supposing that a hypnotizer got absolute control over a subject, and rendered him so sensitive to his suggestions that he could induce him to commit thefts and other crimes, and at the same time be unconscious of the prompting which had impelled him, could the subject be hypnotized by another person, and made to give up the secret? I believe he could after a longer or shorter period, and that the real criminal would then be discovered. Moreover, the person acting under controlling suggestion would almost certainly perform the action in a manner different to his ordinary behaviour. He would appear more or less dazed, and would probably make either no effort or only a very inadequate one to escape capture.

In the event of a criminal action being committed through hypnotic suggestion, expert evidence will be forthcoming to completely establish the case.

I think, however, a false plea of having acted under hypnotic compulsion is a much more probable event than the perpetration of crime through such agency. It is not unlikely that we shall have persons demanding blackmail for alleged felonious hypnotization, as we have had from time to time similar accusations of administering chloroform.*

* It looks as if the plea of having acted under hypnotic suggestion is to become a matter of course in French *causes célèbres*. The papers have been filled with the reports of a sensational trial in Algeria. A Madame Weiss was found guilty of attempting to poison her husband, and she pleaded that she had acted under the control of her lover, who had hypnotized her, and whose suggestions she was unable to resist. The woman was thoroughly degraded, and her

The alleged dangers of hypnotism may be ranged, then, under three heads: As they affect the morals, pocket, and health of the subject.

First, those to which the patient is liable while actually in the hypnotic trance. These embrace crimes of violence, and especially indecent assault or violation. The use of chloroform is attended with the same risk, and criminal reports show that there is real danger of this abuse. I venture to think that there is less danger on this score from hypnotism than from drugs, on account of the comparatively small number of persons who are susceptible to such a degree as to become anæsthetic and amnesic.

The second danger is a much more serious one, and if the allegations made against the abuse of mesmerism were true, they went far to justify the attitude the profession adopted towards it fifty years ago. It was alleged that persons became absolutely under the control of the mesmerist, and that such control could be, and on many occasions was, exercised, not only during the mesmeric sleep, but subsequently, for purposes of immorality and to extort money. It was even believed that this power could be exercised at a distance, and against the will of the subject.

More evidence of the possibility of the operator being able to influence the subject at a distance is still wanted, but the experiments of Prof. Pierre Janet, of Havre, and Prof. Liégeois, of Nancy, seem to show that under special circumstances, and in rare instances, a subject who has been hypnotized a great number of times by the same operator may be sent to sleep by the hypnotizer exerting his will from a distance. I have come to this conclusion with extreme unwillingness, for it seems to open up the possibility of a man or woman being reduced to a state of complete mental

---

accomplice was an unscrupulous villain, but the whole affair was a commonplace crime enough, and easily explicable without calling in the aid of hypnotism.

and moral slavery.* I believe such dependence can only be possible in cases where the hypnotist has dominated the same subject a very great number of times, and then only in very exceptional cases. We have the consolitary legal maxim *de minimis non curat lex*, but I think attention should be drawn to the possibility of such a thing with a view to averting its occurrence.

The Nancy theory of the all-powerfulness of post-hypnotic suggestion introduces an additional element of danger into the practice of hypnotism, and if Prof. Liégeois's ideas were justified, they would, I think, afford a very grave argument against the popularization of the treatment. But most observers regard these ideas as exaggerated and somewhat fanciful, and the dangers opened up by them as chimerical. Still, the fact remains that there are a few persons in every thousand who are

* Examples of this are given in the works of Liégeois, Liébeault, and Bourru and Burot. Liébeault describes a series of experiments with Camille, a very hysterical subject well known to those who have visited Nancy. Camille, unconscious of the experiment, was in Dr. Liébeault's garden, and Dr. Liégeois in the dispensary. The distance between them was 29 mètres, and subject and operator were concealed from one another by a thick hedge. Dr. Liégeois simply fixed his mind on the idea of making Camille sleep. In eight minutes she was actually asleep, and it was found that she was *en rapport* with the Professor and with no one else. He had hypnotized this subject a great number of times, and the experiment failed when Dr. Neilson endeavoured to repeat it under the same conditions. Dr. Beaunis, however, who had also frequently hypnotized her, was also able to send her to sleep from a distance (Liébeault, *op. cit.*, p. 275).

Drs. Gibert and Janet experimented on Mde. B——, at Havre, in the presence of several competent witnesses. They succeeded in sending her to sleep by mental suggestion when she was some kilomètres from them, and ignorant of what was going on. But they failed to influence her to commit definite acts. They could also awaken her by mental suggestion from a distance (Bourru et Burot, 'La Suggestion Mentale,' p. 160).

I have several times made a similar experiment on two or three of my most susceptible subjects, and have tried to hypnotize them by directing my thoughts on the purpose in view at various distances, but I have never noticed any effect. While, therefore, admitting its possibility, I feel convinced that the phenomenon is very rare. Hypnotism here, as in other directions, merely intensifies existing states. The researches of the Psychical Society have completely proved the reality of telepathic influence, and hypnotism, by withdrawing the mind from the life of relation, intensifies the sensitiveness of those few persons who are susceptible to telepathic impressions.

so influenced by suggestion as to be incapable of resisting the orders of the hypnotist even after long intervals of time, and who can be made to execute these orders as of their own initiative, and without being conscious of their source.

Occupying a somewhat middle ground between these two dangers is the risk of a person being made to sign cheques, forge documents, make promises, etc., while in a state of lucid somnambulism. Thus, Dr. De Watteville easily persuaded the 'Soho sleeper' to sign an I O U. But this danger does not appear to me at all so serious as that arising from post-hypnotic suggestion, for the subject would be able on waking to recognise the fact that he had been fraudulently dealt with, and to offer opposition subsequently. Moreover, the danger of such fraudulent proceedings is not confined to hypnotism, for signatures and promises have been extracted from persons through the instrumentality of intoxicants and stupefying drugs, and the law knows how to deal with such abuses.

The third alleged danger is happily non-existent When hypnotism is carefully employed for therapeutic purposes, injury to the subject's physical, moral, or mental health is never caused. That careless and ignorant tampering with hypnotism is dangerous has been sufficiently shown by the cases I have cited, in which grave nervous disturbances have been proved to follow its illegitimate employment (*vide* p. 97). There is still another danger attending its popularization which medical men will do well to be on their guard against, viz., blackmailing and false accusations, for they may be accused of improper conduct in respect to hypnotism, just as they are with regard to chloroform.

It is to be hoped that this possibility, while making them very careful, will not prevent them recommending the use of hypnotism when the patient's condition is such as to benefit from it.

While these pages were going through the press I have met with two cases which show the caution necessary in dealing with hyp-

notism. Strangely enough, I was consulted in both instances on the same day. The first case was that of a young lady of good education and position. She thought herself the victim of a plot hatched by two young men of her acquaintance to influence her telepathically; and she was under the impression that they could at any time direct her thoughts and actions from a distance. Though she had never been hypnotized, she supposed that hypnotism had something to do with it.

I found her, like all persons who suffer from a fixed idea, very difficult to hypnotize, but after six attempts I succeeded in inducing a state of mental receptivity, with inability to open the eyes. I suggested that she would become insusceptible to telepathic influences, and would recover her self-confidence and spirits. She almost immediately began to feel stronger in mind and less hysterical, and in three weeks she went home thoroughly convinced that in future she was proof against such influences. Suggestion alone did not suffice to remove the false ideas, for several medical men and others had tried argument in vain. The idea was too deep-seated to be stirred by ordinary methods, and from the way things were tending, I have little doubt but that the patient would very soon have drifted into melancholia or dementia. Her suspicion that hypnotism had something to do with her symptoms is interesting. There is no doubt but that as the subject comes more into vogue we shall find a great number of persons will imagine themselves victims of this, to them, mysterious agency. The electric telegraph and telephone have been credited by scores of insane persons with being the source of their troubles, and hypnotism is a very likely thing for the mental patient on the look-out for a delusion to take up.

The other case is more serious because, unfortunately, it has not, so far, been found possible to correct the evil. A lady who has for years carried on reformatory work in a midland town, was greatly impressed by the evidence she had heard of the success of hypnotism in curing the craving for drink, and instead of procuring the services of a medical man, she experimented on some of her girls herself. Girls of this class are notoriously susceptible to hypnotism, and she found no difficulty in sending five out of the seven she operated on into somnambulism. The result surpassed her expectation, and three of the five girls seem to have been absolutely cured, and to have remained perfectly sober ever since. Two of the others, influenced by bad companions, have turned upon the unfortunate lady, accuse her of having hypnotized them for immoral purposes, and have made the situation altogether so uncomfortable that she will probably have to give up her work and quit the town. I have hypnotized many women of the same class in institutions, and have never noticed anything peculiar; but this lady tells me that on each occasion she hypnotized those girls they awoke in a somewhat dazed state, and were under the impression that they were with their former companions and in their old haunts.

* * * * * * *

As the question of the State regulation of the use of hypnotism may at any moment become a burning one, I here append the draft of a Bill which has been approved by the Royal Belgian Academy of Medicine, and which is, I believe, at present under discussion in the Belgian Parliament:

LÉOPOLD II.,

ROI DES BELGES,

À tous présents et à venir, Salut,

Sur la proposition de Notre Ministre de la Justice,

NOUS AVONS ARRÊTÉ ET ARRÊTONS :

Notre Ministre de la Justice est chargé de présenter, en Notre nom, aux Chambres législatives, le projet de loi dont la teneur suit :

ARTICLE 1.

Quiconque aura donné en spectacle au public une personne hypnotisée par lui-même ou par autrui, sera puni d'un emprisonnement de quinze jours à six mois et d'une amende de vingt-six francs à mille francs.

ARTICLE 2.

Quiconque, n'étant pas qualifié pour exercer l'art de guérir, aura hypnotisé une personne qui n'avait pas atteint l'âge de dix huit ans accomplis ou n'était pas saine d'esprit, sera puni d'un emprisonnement de quinze jours à un an et d'une amende de vingt-six francs à mille francs, alors même que la personne hypnotisée n'aurait pas été donnée en spectacle au public

En cas de concours avec les infractions punies par les dispositions légales concernant l'art de guérir, la peine prononcée par le présent article sera seule appliquée.

ARTICLE 3.

Sera puni de la réclusion quiconque aura, avec une intention frauduleuse ou à dessein de nuire, fait écrire ou signer par une personne hypnotisée un acte ou une pièce énonçant une convention, des dispositions, un engagement, une décharge ou une déclaration. La même peine sera appliquée à celui que aura fait usage de l'acte ou de la pièce

Donné à Laeken, le 14me avril, 1890.*

LÉOPOLD.

PAR LE ROI :

Le Ministre de la Justice,

JULES LE JEUNE.

* *Juridical Review*, January, 1891.

INDEX.

AIDS to hypnosis, 152, 174
Alcoholism and hypnotism, 75, 115, 152, 205
Amateur hypnotism, 97, 317
Amaurosis, hypnotism in, 58
Amenorrhœa, 57, 233, 265
Amnesia in hypnosis, 67
Anæmia, hypnotism in, 189, 275
Anæsthesia in hypnosis, 206
by simple suggestion, 9, 69, 151
Animal alkaloids, 195
Animal magnetism, 45, 93, 306
Animals, hypnotization of, 300
Anodyne, hypnotism as an, 11, 71
Aphonia, case of, 71
Association of brain-centres, 111, 206, 209
Automatism, 34, 115, 130
Auto suggestion, 17, 25, 74, 148, 299
Awaking, methods of, 45, 130
Azam, Prof., 84

Barwise, Dr., 112, 115, 156, 176
Beaunis, Prof., experiments of, 40, 50, 54, 63, 67, 186
Bernheim, Prof., 2, 48, 106, 201, 229, 306
Berillon, Dr., 5, 122, 157, 246
Blisters caused by suggestion, 63
Braid, James, 5, 160, 196, 284
Brain-fag, hypnotism in, 72, 253
Bramwell, Dr. Milne, 2, 135, 172
Brown Séquard on inhibition, 13, 187
Brunton, Dr. Lauder, on inhibition, 189, 202
Buzzard, Dr., 213, 272

Cannabis indica, effects of, 115
Catalepsy, hypnotic, 51, 131
Cataplexy, 132
Centres, brain, 111, 200
Charcot's stages, 51, 65
Children, hypnotizability of, 54, 90, 139
Chloroform and hypnotism, 9, 71, 94, 174, 209
Chorea, case of, 226
Christian science, 305
Classification, Liébeault's, 291
Concentration, effects of mental, 30
Consciousness, conditions of, 204
Constipation, case of, 260
Contracture, case of hysterical, 223
Co operation of patient, 131, 141
Criminal use of hypnotism, 103, 143, 205, 308
Cruise, Dr., 100, 178, 311

Dangers of hypnotism, 56, 94, 99
Death from imagination, 23
Deferred suggestion, 66
Definition of hypnotism, 48
Delbœuf's theory, 19, 286
Diarrhœa, case of, 259
Digestion, disorders of, 57, 140
Distance, hypnotizing from a, 97, 315
Dipsomania and drunkenness, 175, 275
Dipsomania, cases of, 267, 273
Double personality, 79, 85
Double brain, 84, 122
Dreams, illness commencing in, 35, 36, 197
Dreams, suggested, 40
Dynamo-genesis, 13, 179
Dysmenorrhœa, case of, 266

Echo, voice, 198
Education, hypnotism in, 89
Energy, nerve, 48, 186
Enuresis, cases of, 233, 263
Epilepsy and hypnotism, 155, 199

Epilepsy, cases of, 246, 251
Exhibitions of hypnotism, 95 292

Failures, 135, 155, 271
Fascination, hypnotism by, 143
Fear and fright, effects of, 16, 21
Féda X——, case of, 84
Forel, Prof., 2, 51, 77, 154
Free will and hypnotism, 90, 139, 177, 242, 313
Function and mental states, 14, 201

General practice, hypnotism in, 58, 159, 163, 280
Genito-urinary diseases, hypnotism in, 160, 242
Gowers, Dr, 22, 116, 205, 305

Habits, nerve, 189
Hæmorrhage by suggestion, 64
Headache, cases of, 240, 258
Hack-Tuke, Dr., 4, 18, 23, 91
Hallucinations, hypnotic, 67, 164
  negative, 119, 289
Heart disease, cases of, 262
Heidenhain, Prof., 2, 93, 112, 179, 198
Hibernation, 220
Highest centres, action of, 197, 200, 205
Hyperæsthesia in hypnosis, 52, 199
Hypnogenic zones, 187
Hypnotism, dangers of, 56, 94, 99
  safeguards to, 104
  stages of, 51
  theories of, 114, 196, 205, 209
Hypochondriasis, 14, 306
  case of, 236
Hysteria and hypnotism, 52 55, 214
Hysteria, cases of, 221 225, 228, 237

Idea, diseases dependent on, 15, 306
Imagination, influence of, in health and disease, 8, 16, 25, 73
Imposture, 128, 292
Imitation, effects of, 43, 129
Individuality in hypnosis, 311
Infantile paralysis, hypnotism in, 153, 202, 241
Inflammation influenced by hypnotism, 61
Influence of the hypnotist, 104, 311
Influence at a distance, 97, 315
Inhibition 179
Insanity and hypnotism, 74, 147, 160, 268
Insomnia, case of, 252
Intermittent fever, case of, 248
Italian researches, 147, 212, 216

Jackson, Dr. Hughlings, 197, 200

Kingsbury, Dr., 4, 170, 239, 302, 309
Krafft-Ebing, Prof. von, 64, 164

Lauder Brunton, Dr, on inhibition, 179, 195, 202
Laura Bridgman, 32, 203
Le grand hypnotisme, 51-53, 210
Le petit hypnotisme, 53
Lethargy, 51, 204
Leuconiaines, 195
Liébeault's classification, 291,
  discovery, 1
  dispensary, 42
  theory, 200, 220
Liégeois, Prof., 3, 290, 309
Literature, recent, 4
Locomotor ataxy, cases of, 154, 255
Louise Lateau, 81
Luys' mirror, 145, 285
  transfer treatment, 301

Magnetism, animal, 45, 93, 305
Magnets, influence of, 286, 304
Masturbation, case of, 268
Melancholia, hypnotism in, 147, 150
Memory in hypnosis, 68, 112, 205, 310
Memory, latent, 69, 87
Menorrhagia, case of, 234
Menstruation, disorders of, 140, 160, 233, 266
Mercier, Dr., 21, 203
Methods of hypnotizing, 43, 120, 128, 292
Midwifery, hypnotism in, 70, 178, 244, 267
Mind cure, 16, 42, 306
Miracle cures, 25, 42

Moll, Dr. Albert, 3, 68, 121, 136, 145
Moral insanity, 76, 91, 238
Morselli, Prof., 4, 200, 216
Myers, Dr. A. T., 3, 98, 167, 258

Nancy, school of, 53
Negative hallucinations, 119, 289
Nerve energy, 48, 190
habit, 189 197, 208
Neuralgia, hypnotism in, 49, 72, 232, 239, 261
Neurasthenia, hypnotism in, 171, 253
Nutrition in hypnosis, 211, 171, 243, 253, 271

Organic disease, hypnotism in, 157, 167, 236
Osgood, Dr. Hamilton, 3, 61, 246
Ovarian troubles, hypnotism in, 178

Paralysis by hypnotic suggestion, 119
Paralysis, cases of, 228, 235, 246
Permanence of results, 92
Personality, change of, by hypnotism, 87, 175, 253, 311,
Physiology of hypnotism, 112, 195, 206
Pitres, Prof., 3, 87, 187
Post-hypnotic suggestions, 66, 289
Precautions in employing hypnotism, 104, 317
Preyer, Prof., 3, 132, 216
Protection of subjects, 104, 275
Psychical states and organic functions, 201
Psychical Research, Society for, 98, 305, 316

Resistance to hypnotism, 145, 146
suggestion, 120, 151, 272
Respiration in hypnosis, 215
Retinitis syphilitica, case of, 249
Rheumatism, hypnotism in, 51, 160, 230, 242, 264
Reynolds, Dr. Russell, 15

Sciatica, cases of, 232, 263
Senses, abnormal acuteness of, 32
Simulation, 127
Sleep and hypnosis compared, 38, 47, 195
Sneezing, paroxysmal, case of, 260
Somnambulism, spontaneous, 34
hypnotic, 131
Sphygmographic tracings, 216
Spinal irritation, case of, 261
Spine, railway, 60
Spiritualism and hypnotism, 7
Statistics, 54, 138, 243
Stigmata, 64
Suggestion without hypnotism 59, 69

Tamburini, Prof., 213
Tarchanoff, Prof., 184
Temperature effected by hypnotic suggestion, 64
Theories regarding hypnotism, 48, 113, 205
Thought transference and hypnotism, 97, 315
Tobacco habit cured by hypnotism, 75, 270
Torticollis, case of, 257
Touch, healing by royal, 26

Van Eeden, Dr, cases by, 240
Van Renterghem, Dr., 2, 241
Vaso-motor effects of hypnotism, 45, 64, 159
Vivi-sepulture, 23
Vomiting by suggestion, 78, 275
Voisin, Dr. Auguste, 146, 209

Warmth, suggestion of, 44, 130
Waste products, effects of, 114, 195
Wetterstrand, Dr., 137
Will, curative action of the, 308
Wood Outterson, Dr., 105, 251
Writer's cramp, cases of, 229, 253

Yeo, Dr. Gerald, theory of, 113
Yung, experiments of Prof, 282

Zones, hypno-genic, 187

THE END.

Baillière, Tindall & Cox, King William Street, Strand

LANE MEDICAL LIBRARY

To avoid fine, this book should be returned on or before the date last stamped below.

APR 4 1964

DEC 17 1965

LANE MEDICAL LIBRARY OF
STANFORD UNIVERSITY
300 PASTEUR ROAD
PALO ALTO, CALIFORNIA

U921 Tuckey, C.L. 17156
T89 Psycho-therapeutics.
1891

NAME	DATE DUE
J. G. Aimes	APR 4 1964
Fred Quackenbush	DEC 17 1965